

# Modular Contactor

Rev1.0 2022/03/30



***ASwich***



# ASwich



## 40A-63A single pole AC contactor

- **Higher Current**  
18mm 1MU width, maximum current up to 63A
- **Greater Wiring Capacity**  
M5 wiring screw, maximum wiring capacity 25mm<sup>2</sup>
- **More Secure**  
Hidden coil terminals for larger and safer electrical clearances
- **Two Types Of Contacts**  
Normally open and normally closed two kinds of contacts are optional

# ASwich



## ECH8 series ultra-wide voltage DC contactor

- Current: 16A-32A
- DC10-24V ultra-wide voltage  
18mm, more energy-saving, smaller size, quieter, patented new product
- Multiple Usage Categories  
Can be used in AC-1, AC-3, AC-7a, AC-7b and other usage categories

# ASwich



## ECH8 series AC/DC 24V contactor

- Current: 16A-63A
- 24V AC and DC Universal
- Multiple Usage Categories  
Can be used in AC-1, AC-3, AC-7a, AC-7b and other usage categories

# ASwich



## ECH8 series AC/DC 230V Contactor

- Current: 32A-63A
- 230V AC and DC universal
- Multiple usage categories  
Can be used in AC-1, AC-3, AC-7a, AC-7b and other usage categories

## Company Introduction

Aswich started the switch and circuit breaker manufacturing in 1988. With over 30 years of experience and high investment in R&D, Aswich is now a specialist in the intelligent electric component sector.

Aswich is an ISO9001:2015 and ISO14001 accredited company. Located in Wenzhou, our production base owned the UL-approved laboratory, more than 30,000 square meters plant and multiple automated production lines. At present, it has more than 500 employees and approximately 30% are R&D technicians. Thanks to its strong ability of independent innovation, all Aswich products are developed and manufactured with the focus on reliability, safety and convenience according to the latest international standards.

Our main products are including DC and AC circuit breaker (MCB), DC and AC isolation switch, DC molded case circuit breaker (MCCB), DC fuse, DC lighting surge protector (SPD) and so on. Dealing with the needs of the market, Aswich can not only provide customized products but also integrates leading products into the overall solution, providing customers with a one-stop integrated service experience.

Innovation is the only way to the future. As one of the earliest electrical switch companies to obtain UL certification in China, Aswich has also obtained CE, IEC, TUV, CCC, SAA and other authoritative certifications and all products have passed the strict testing requirements of GB and IEC standards. It is widely used in more than 40 countries and regions such as Europe, North America, and the Asia Pacific, serving nearly a thousand key engineering projects.

So far, we have provided intelligent electrical solutions for hundreds of domestic and foreign customers such as CAT, LG, BYD, Panasonic, Honeywell, Huawei etc., and have been highly recognized by the professional market.

Aswich

安守电器

# Fully-Functional Laboratory

Our laboratory has a complete set of testing equipment, which can conduct effective and reliable tests on materials and products, and has been approved by UL.



## Our Certificates

ASWICH ensures that its products have obtained important certifications and recognitions from international authoritative organizations in order to have excellent effects in various scenarios.



## Strict Quality Tests



Electrical Cycle Test



UV Aging Test



High Low-Temperature Humid-Heat Test



Glow-Wire Test



High-Temperature Test



IPX5-6 Strong Water Spray Test



# Pruduct Catalog

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## ECH8 Modular contactor

### ○ High degree of Electrical life

The ECH8 modular contactor has been tested to withstand 100,000 times full load switch ON or OFF under AC-a load Utilization category

### ○ Noiseless and hum free

The ECH8 contactor eliminates the obvious impact sound of the traditional contactor at the moment of pull-in, and eliminates contactor in the low-frequency hum noise of operating.

Applicable to most electric areas of commercial building . In particular, the modular contactor AC / DC series achieves free noise and creates a quiet environment for you

### ○ Energy Saving

The ECH8 contactor has an optimized electromagnetic system, which greatly reduces the holding power of contactor. .

### ○ Compact design

The width of ECH8 contactors is much smaller than traditional AC Contactors, which saves users more installation space and can be conveniently installed in ordinary distribution boxes

### ○ Auxiliary function

The ECH8 contactor can be extended with auxiliary contacts on the right side of the product, which is more suitable for signal feedback requirements in an intelligent control environment

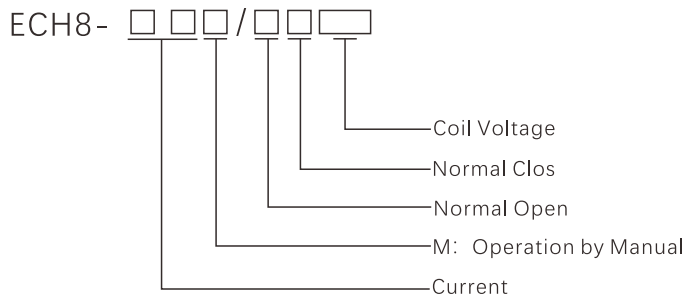


### Applicable scope

The ECH8 modular contactor (hereinafter referred to as contactor) is mainly suitable for AC 50Hz (or 60Hz), rated working voltage to 400V and rated current operation in the circuit up to 125A, it can control the low-inductance and low-inductance load of household appliances and similar purposes; it can also be used to control the load of household motors. The power should be reduced accordingly.

The ECH8 contactors according to standard IEC/EN61095 , IEC60947-4-1 and are used mainly in buildings for switching and controlling lighting, heating, ventilation and pumps. They are part of the complete range of Din rail products and can be integrated easily in dedicated panels.

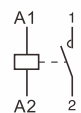
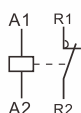
### Modular contactor



(eg. ECH8-25/20 230V . It is 25A , 2NO ,230V AC current coil voltage)

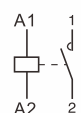
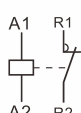
**AC 1P, 1modules**



Contactor Model	Ie Rating		Uc (V AC)(50Hz)	Circuit Diagram
	AC-7a AC-1	AC-7b AC-3		
ECH8-16/10	16A	6A	24	
ECH8-20/10	20A	7A	110	
ECH8-25/10	25A	9A	230	
ECH8-16/01	16A	6A	24	
ECH8-20/01	20A	7A	110	
ECH8-25/01	25A	9A	230	

**AC 1P, 2modules**



Contactor Model	Ie Rating		Uc (V AC)(50Hz)	Circuit Diagram
	AC-7a AC-1	AC-7b AC-3		
ECH8-32/10	32A	12A	24	
ECH8-40/10	40A	18A	110	
ECH8-63/10	63A	25A	230	
ECH8-32/01	32A	12A	24	
ECH8-40/01	40A	18A	110	
ECH8-63/01	63A	25A	230	

AC 2P,1modules



Contactor Model	Ie Rating		Uc (V AC)(50Hz)	Circuit Diagram
	AC-7a AC-1	AC-7b AC-3		
ECH8-16/20	16A	6A	24	
ECH8-20/20	20A	7A	110	
ECH8-25/20	25A	9A	230	
ECH8-16/11	16A	6A	24	
ECH8-20/11	20A	7A	110	
ECH8-25/11	25A	9A	230	
ECH8-16/02	16A	6A	24	
ECH8-20/02	20A	7A	110	
ECH8-25/02	25A	9A	230	

AC 2P,2modules



Contactor Model	Ie Rating		Uc (V AC)(50Hz)	Circuit Diagram
	AC-7a AC-1	AC-7b AC-3		
ECH8-32/20	32A	12A	24	
ECH8-40/20	40A	18A	110	
ECH8-63/20	63A	25A	230	
ECH8-32/11	32A	12A	24	
ECH8-40/11	40A	18A	110	
ECH8-63/11	63A	25A	230	
ECH8-32/02	32A	12A	24	
ECH8-40/02	40A	18A	110	
ECH8-63/02	63A	25A	230	

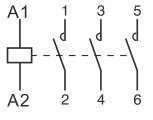
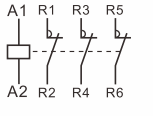
AC 2P,3modules



Contactor Model	Ie Rating		Uc (V AC)(50Hz)	Circuit Diagram
	AC-1	AC-3		
ECH8-80/20	80A	32A	24	
ECH8-100/20	100A	40A	110	
ECH8-125/20	125A	50A	230	
ECH8-80/11	80A	32A	24	
ECH8-100/11	100A	40A	110	
ECH8-125/11	125A	50A	230	
ECH8-80/02	80A	32A	24	
ECH8-100/02	100A	40A	110	
ECH8-125/02	125A	50A	230	

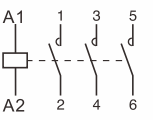
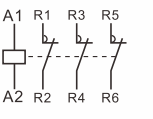
AC 3P,2modules



Contactor Model	Ie Rating		Uc (V AC)(50Hz)	Circuit Diagram
	AC-7a AC-1	AC-7b AC-3		
ECH8-16/30	16A	6A	24	
ECH8-20/30	20A	7A	110	
ECH8-25/30	25A	9A	230	
ECH8-16/03	16A	6A	380	
ECH8-20/03	20A	7A	110	
ECH8-25/03	25A	9A	230	
ECH8-25/03	25A	9A	380	

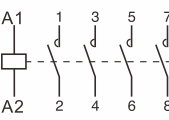
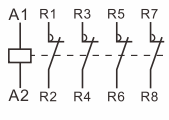
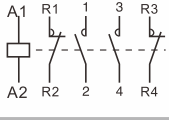
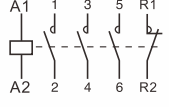
AC 3P,3modules



Contactor Model	Ie Rating		Uc (V AC)(50Hz)	Circuit Diagram
	AC-7a AC-1	AC-7b AC-3		
ECH8-32/30	32A	12A	24	
ECH8-40/30	40A	18A	110	
ECH8-63/30	63A	25A	230	
ECH8-32/03	32A	12A	380	
ECH8-40/03	40A	18A	110	
ECH8-63/03	63A	25A	230	
ECH8-63/03	63A	25A	380	

AC 4P,2modules



Contactor Model	Ie Rating		Uc (V AC)(50Hz)	Circuit Diagram
	AC-7a AC-1	AC-7b AC-3		
ECH8-16/40	16A	6A	24	
ECH8-20/40	20A	7A	110	
ECH8-25/40	25A	9A	230	
ECH8-16/04	16A	6A	380	
ECH8-20/04	20A	7A	110	
ECH8-25/04	25A	9A	230	
ECH8-16/22	16A	6A	380	
ECH8-20/22	20A	7A	110	
ECH8-25/22	25A	9A	230	
ECH8-16/31	16A	6A	380	
ECH8-20/31	20A	7A	110	
ECH8-25/31	25A	9A	230	
ECH8-25/31	25A	9A	380	

AC 4P,3modules



Contactor Model	Ie Rating		Uc (V AC)(50Hz)	Circuit Diagram
	AC-7a AC-1	AC-7b AC-3		
ECH8-32/40	32A	12A	24	
ECH8-40/40	40A	18A	110	
ECH8-63/40	63A	25A	230 380	
ECH8-32/04	32A	12A	24	
ECH8-40/04	40A	18A	110	
ECH8-63/04	63A	25A	230 380	
ECH8-32/22	32A	12A	24	
ECH8-40/22	40A	18A	110	
ECH8-63/22	63A	25A	230 380	
ECH8-32/31	32A	12A	24	
ECH8-40/31	40A	18A	110	
ECH8-63/31	63A	25A	230 380	

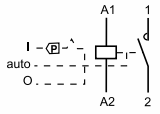
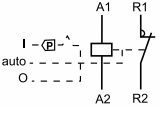
AC 4P,6modules



Contactor Model	Ie Rating		Uc (V AC)(50Hz)	Circuit Diagram
	AC-1	AC-3		
ECH8-80/40	80A	32A	24	
ECH8-100/40	100A	40A	110	
ECH8-125/40	125A	50A	240	
ECH8-80/04	80A	32A	24	
ECH8-100/04	100A	40A	110	
ECH8-125/04	125A	50A	240	
ECH8-80/22	80A	32A	24	
ECH8-100/22	100A	40A	110	
ECH8-125/22	125A	50A	240	
ECH8-80/31	80A	32A	24	
ECH8-100/31	100A	40A	110	
ECH8-125/31	125A	50A	240	

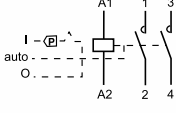
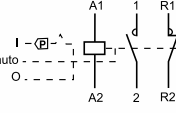
## AC 1P,1modules



Contactor Model	Ie Rating		Uc (V AC)(50Hz)	Circuit Diagram
	AC-7a AC-1	AC-7b AC-3		
ECH8-16M/10	16A	6A	24	
ECH8-20M/10	20A	7A	110	
ECH8-25M/10	25A	9A	230	
ECH8-16M/01	16A	6A	24	
ECH8-20M/01	20A	7A	110	
ECH8-25M/01	25A	9A	230	

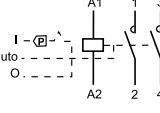
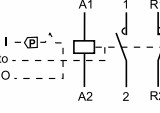
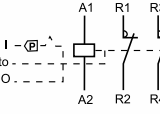
## AC 2P,1modules



Contactor Model	Ie Rating		Uc (V AC)(50Hz)	Circuit Diagram
	AC-7a AC-1	AC-7b AC-3		
ECH8-16M/20	16A	6A	24	
ECH8-20M/20	20A	7A	110	
ECH8-25M/20	25A	9A	230	
ECH8-16M/11	16A	6A	24	
ECH8-20M/11	20A	7A	110	
ECH8-25M/11	25A	9A	230	
ECH8-16M/02	16A	6A	24	
ECH8-20M/02	20A	7A	110	
ECH8-25M/02	25A	9A	230	

## AC 2P,2modules



Contactor Model	Ie Rating		Uc (V AC)(50Hz)	Circuit Diagram
	AC-7a AC-1	AC-7b AC-3		
ECH8-32M/20	32A	12A	24	
ECH8-40M/20	40A	18A	110	
ECH8-63M/20	63A	25A	230	
ECH8-32M/11	32A	12A	24	
ECH8-40M/11	40A	18A	110	
ECH8-63M/11	63A	25A	230	
ECH8-32M/02	32A	12A	24	
ECH8-40M/02	40A	18A	110	
ECH8-63M/02	63A	25A	230	

## AC 3P,2modules



Contactor Model	Ie Rating		Uc (V AC)(50Hz)	Circuit Diagram
	AC-7a AC-1	AC-7b AC-3		
ECH8-16M/30	16A	6A	24	
ECH8-20M/30	20A	7A	110	
ECH8-25M/30	25A	9A	380	
ECH8-16M/03	16A	6A	24	
ECH8-20M/03	20A	7A	110	
ECH8-25M/03	25A	9A	380	

## AC 3P,3modules



Contactor Model	Ie Rating		Uc (V AC)(50Hz)	Circuit Diagram
	AC-7a AC-1	AC-7b AC-3		
ECH8-32M/30	32A	12A	24	
ECH8-40M/30	40A	18A	110	
ECH8-63M/30	63A	25A	380	
ECH8-32M/03	32A	12A	24	
ECH8-40M/03	40A	18A	110	
ECH8-63M/03	63A	25A	380	

## AC 4P,2modules

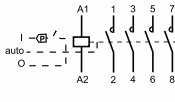
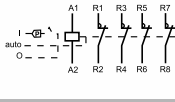
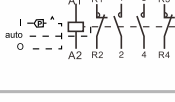
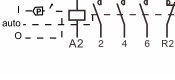


Contactor Model	Ie Rating		Uc (V AC)(50Hz)	Circuit Diagram
	AC-7a AC-1	AC-7b AC-3		
ECH8-16M/40	16A	6A	24	
ECH8-20M/40	20A	7A	110	
ECH8-25M/40	25A	9A	380	
ECH8-16M/04	16A	6A	24	
ECH8-20M/04	20A	7A	110	
ECH8-25M/04	25A	9A	380	
ECH8-16M/22	16A	6A	24	
ECH8-20M/22	20A	7A	110	
ECH8-25M/22	25A	9A	380	
ECH8-16M/31	16A	6A	24	
ECH8-20M/31	20A	7A	110	
ECH8-25M/31	25A	9A	380	



**AC 4P, 3modules**

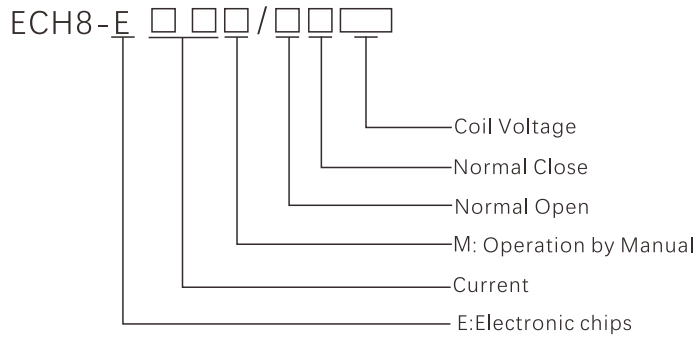


Contactor Model	Ie Rating		Uc (V AC)(50Hz)	Circuit Diagram
	AC-7a AC-1	AC-7b AC-3		
ECH8-32M/40	32A	12A	24	
ECH8-40M/40	40A	18A	110	
ECH8-63M/40	63A	25A	230	
ECH8-32M/04	32A	12A	380	
ECH8-40M/04	40A	18A	110	
ECH8-63M/04	63A	25A	230	
ECH8-32M/22	32A	12A	380	
ECH8-40M/22	40A	18A	110	
ECH8-63M/22	63A	25A	230	
ECH8-32M/31	32A	12A	380	
ECH8-40M/31	40A	18A	110	
ECH8-63M/31	63A	25A	230	

**AC Modular contactor power consumption**

Poles	Ie Rating		Uc (V AC)(50Hz)	Power consumption		Max Power
	AC-7a	AC-7b		Hold on	Pull in	
1P	16A	6A	230	2.8VA	11.5VA	1.2W
	20A	7A	230	2.8VA	11.5VA	1.2W
	25A	9A	230	2.8VA	11.5VA	1.2W
2P	16A	6A	230	2.8VA	11.5VA	1.2W
	20A	7A	230	2.8VA	11.5VA	1.2W
	25A	9A	24	3.0VA	11.5VA	1.3W
			230	2.8VA	11.5VA	1.2W
	32A	12A	230	4.1VA	31VA	1.6W
	40A	18A	230	4.1VA	31VA	1.6W
	63A	25A	230	4.1VA	31VA	1.6W
	100A	-	230	4.1VA	31VA	2.1W
3P	16A	6A	230	4.1VA	31VA	1.6W
	20A	7A	230	4.1VA	31VA	1.6W
	25A	9A	230	4.1VA	31VA	1.6W
	32A	12A	230	7VA	48VA	2.1W
	40A	18A	230	7VA	48VA	2.1W
	63A	25A	230	7VA	48VA	2.1W
	100A	-	230	13VA	106VA	4.2W
4P	16A	6A	230	4.1VA	31VA	1.6W
	20A	7A	230	4.1VA	31VA	1.6W
	25A	9A	24	4.8VA	33VA	1.6W
			230	4.1VA	31VA	1.6W
	32A	12A	230	7VA	48VA	2.1W
	40A	18A	230	7VA	48VA	2.1W
	63A	25A	230	7VA	48VA	2.1W
	100A	-	230	13VA	106VA	4.2W

## DC12~24V Modular contactor



- Use in smart controls system
- Humming free

( eg.ECH8-E25/20 DC12V, It is 25A, 2NO, 12V DC current coil voltage with electronic chips )

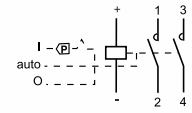
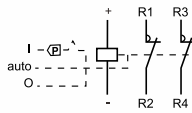
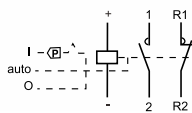
DC 2P,2modules



Contactor Model	Ie Rating		Uc (V DC)	Circuit Diagram
	AC-7a	AC-7b		
ECH8-E16/20	16A	6A	12	
ECH8-E20/20	20A	7A	24	
ECH8-E25/20	25A	9A	10-30	
ECH8-E16/02	16A	6A	12	
ECH8-E20/02	20A	7A	24	
ECH8-E25/02	25A	9A	10-30	
ECH8-E16/11	16A	6A	12	
ECH8-E20/11	20A	7A	24	
ECH8-E25/11	25A	9A	10-30	

**DC 2P, 2modules**

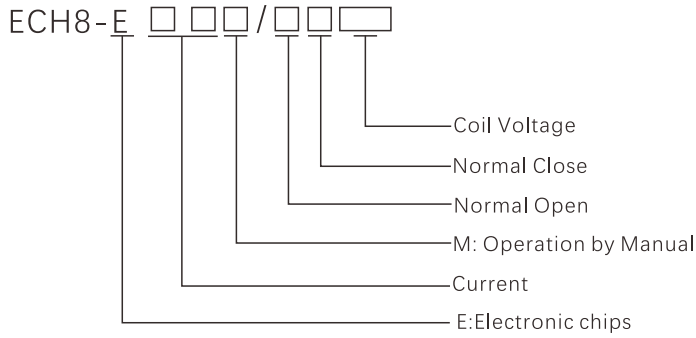


Contactor Model	Ie Rating		Uc (V DC)	Circuit Diagram
	AC-7a	AC-7b		
ECH8-E16M/20	16A	6A	12	
ECH8-E20M/20	20A	7A	24	
ECH8-E25M/20	25A	9A	10-30	
ECH8-E16M/02	16A	6A	12	
ECH8-E20M/02	20A	7A	24	
ECH8-E25M/02	25A	9A	10-30	
ECH8-E16M/11	16A	6A	12	
ECH8-E20M/11	20A	7A	24	
ECH8-E25M/11	25A	9A	10-30	

**DC Modular Contactor DC power consumption**

Poles	Ie Rating		Uc (V DC)	Power consumption	
	AC-7a	AC-7b		Hold on	Pull in
2P	16A	6A	12	0.4VA	6.7VA
			24	0.6VA	7VA
	20A	7A	12	0.4VA	6.7VA
			24	0.6VA	7VA
	25A	9A	12	0.4VA	6.7VA
			24	0.6VA	7VA

## AC/DC18~40V Modular contactor



(eg. ECH8-E25/20 AC230V, It is 25A, 2NO, 230V AC current coil voltage with electronic chips)

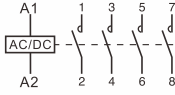
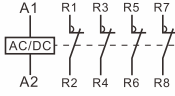
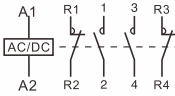
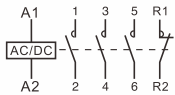
AC/DC 2P, 2modules

Contactor Model	Ie Rating		Uc (V AC/DC)(50Hz)	Circuit Diagram
	AC-7a	AC-7b		
ECH8-E32/20	32A	12A	24	
ECH8-E40/20	40A	18A	36	
ECH8-E63/20	63A	25A	18-40	
ECH8-E32/11	32A	12A	24	
ECH8-E40/11	40A	18A	36	
ECH8-E63/11	63A	25A	18-40	
ECH8-E32/02	32A	12A	24	
ECH8-E40/02	40A	18A	36	
ECH8-E63/02	63A	25A	18-40	



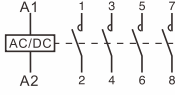
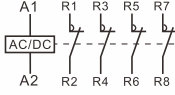
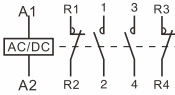
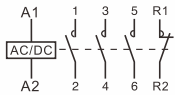

**4P, 2modules**



Contactor Model	Ie Rating		Uc (V AC/DC)(50Hz)	Circuit Diagram
	AC-7a	AC-7b		
ECH8-E16/40	16A	6A	24 36 18-40	
ECH8-E20/40	20A	7A		
ECH8-E25/40	25A	9A		
ECH8-E16/04	16A	6A	24 36 18-40	
ECH8-E20/04	20A	7A		
ECH8-E25/04	25A	9A		
ECH8-E16/22	16A	6A	24 36 18-40	
ECH8-E20/22	20A	7A		
ECH8-E25/22	25A	9A		
ECH8-E16/31	16A	6A	24 36 18-40	
ECH8-E20/31	20A	7A		
ECH8-E25/31	25A	9A		


**4P, 3modules**



Contactor Model	Ie Rating		Uc (V AC/DC)(50Hz)	Circuit Diagram
	AC-7a	AC-7b		
ECH8-E32/40	32A	12A	24 36 18-40	
ECH8-E40/40	40A	18A		
ECH8-E63/40	63A	25A		
ECH8-E32/04	32A	12A	24 36 18-40	
ECH8-E40/04	40A	18A		
ECH8-E63/04	63A	25A		
ECH8-E32/22	32A	12A	24 36 18-40	
ECH8-E40/22	40A	18A		
ECH8-E63/22	63A	25A		
ECH8-E32/31	32A	12A	24 36 18-40	
ECH8-E40/31	40A	18A		
ECH8-E63/31	63A	25A		

AC/DC 2P,2modules



Contactor Model	Ie Rating		Uc (V AC/DC)(50Hz)	Circuit Diagram
	AC-7a	AC-7b		
ECH8-E32M/20	32A	12A	24	
ECH8-E40M/20	40A	18A	36	
ECH8-E63M/20	63A	25A	18-40	
ECH8-E32M/11	32A	12A	24	
ECH8-E40M/11	40A	18A	36	
ECH8-E63M/11	63A	25A	18-40	
ECH8-E32M/02	32A	12A	24	
ECH8-E40M/02	40A	18A	36	
ECH8-E63M/02	63A	25A	18-40	

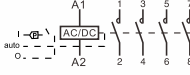
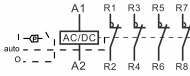

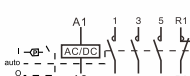
AC/DC 4P,2modules



Contactor Model	Ie Rating		Uc (V AC/DC)(50Hz)	Circuit Diagram
	AC-7a	AC-7b		
ECH8-E16M/40	16A	6A	24	
ECH8-E20M/40	20A	7A	36	
ECH8-E25M/40	25A	9A	18-40	
ECH8-E16M/04	16A	6A	24	
ECH8-E20M/04	20A	7A	36	
ECH8-E25M/04	25A	9A	18-40	
ECH8-E16M/22	16A	6A	24	
ECH8-E20M/22	20A	7A	36	
ECH8-E25M/22	25A	9A	18-40	
ECH8-E16M/31	16A	6A	24	
ECH8-E20M/31	20A	7A	36	
ECH8-E25M/31	25A	9A	18-40	


**4P, 3modules**

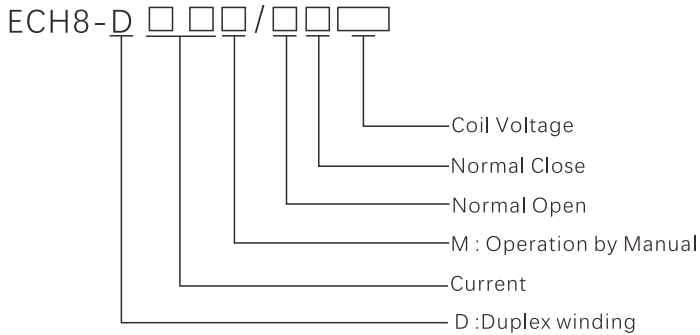


Contactor Model	Ie Rating		Uc (V AC/DC)(50Hz)	Circuit Diagram
	AC-7a	AC-7b		
ECH8-E32M/40	32A	12A	24	
ECH8-E40M/40	40A	18A		
ECH8-E63M/40	63A	25A	18-40	
ECH8-E32M/04	32A	12A	24	
ECH8-E40M/04	40A	18A		
ECH8-E63M/04	63A	25A	18-40	
ECH8-E32M/22	32A	12A	24	
ECH8-E40M/22	40A	18A		
ECH8-E63M/22	63A	25A	18-40	
ECH8-E32M/31	32A	12A	24	
ECH8-E40M/31	40A	18A		
ECH8-E63M/31	63A	25A	18-40	


**Modular Contactor AC/DC power consumption**

Poles	Ie Rating		Uc (V AC/DC)(50Hz)	Power consumption	
	AC-7a	AC-7b		Hold on	Pull in
2P	32A	12A	24	0.9VA	36VA
	40A	18A	24	0.9VA	36VA
	63A	25A	24	0.9VA	36VA
4P	16A	6A	24	0.9VA	36VA
	20A	7A	24	0.9VA	36VA
	25A	9A	24	0.9VA	36VA
	32A	12A	24	1.2VA	58VA
	40A	18A	24	1.2VA	58VA
	63A	25A	24	1.2VA	58VA

## AC/DC 230V Modular contactor (Duplex Winding)



(eg. ECH8-D25/20 230V, It is 25A , 2NO ,230V AC current coil voltage with Duplex winding)

AC/DC 4P,3modules



Contactor Model	Ie Rating		Uc (V AC/DC)(50Hz)	Circuit Diagram
	AC-7a	AC-7b		
ECH8-D32/40	32A	12A	230	
ECH8-D40/40	40A	18A		
ECH8-D63/40	63A	25A		
ECH8-D32/04	32A	12A	230	
ECH8-D40/04	40A	18A		
ECH8-D63/04	63A	25A		
ECH8-D32/22	32A	12A	230	
ECH8-D40/22	40A	18A		
ECH8-D63/22	63A	25A		
ECH8-D32/31	32A	12A	230	
ECH8-D40/31	40A	18A		
ECH8-D63/31	63A	25A		

### AC/DC Modular Contactor duplex winding power consumption



Poles	Ie Rating		Uc (V AC/DC)(50Hz)	Power consumption	
	AC-7a	AC-7b		Hold on	Pull in
4P	32A	12A	230	2.7VA	81.42VA
	40A	18A	230	2.7VA	81.42VA
	63A	25A	230	2.7VA	81.42VA



## Modular contactor auxiliary

### Auxiliary Contacts

The Auxiliary contacts are indicator contactor contacts status switch OFF or ON

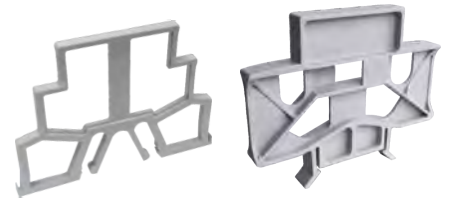
	AC-12		AC-15		DC-13		Rated Current	Circuit Diagram
	C.V.	C.A.	C.V.	C.A.	C.V.	C.A.		
ECH8-AUC11	240V	5A	230V	2A	DC 130V	1A	5A	
ECH8-AUC20	240V	5A	230V	2A	DC 130V	1A	5A	



### Spacing piece

Spacers are used to reduce the temperature rise of devices mounted side by side. It is recommended to separate electronic equipment (temperature adjustment devices, programmable timer etc.) from electromechanical equipment (impulse relays, contactors)

	Technical specifications
Spacing piece	3mm Spacing piece
	9mm Spacing piece



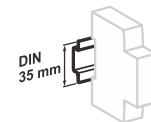
## Main parameter and technical performance

Power circuit		
Voltage rating(Ue)	1P,2P	250V AC
	3P,4P	400V AC
Frequency		50/60Hz
Endurance(O-C)		1,000,000 cycles
Electrical		100,000 cycles
Maximum number of switching operation a day		100
Insulation voltage(Ui)		500 V AC
Pollution degree		2
Rated impulse withstand voltage(Uimp)		2.5kV(4kV for 12/24/48VAC)
Degree of protection (IEC 60529)	Device only	IP20
	Device in modular enclosure	IP40
Operating temperature		-5°C~+60°C
Storage temperature		-40°C~+70°C
Tropicalization(IEC 60068.1)		Treatment 2 (relative humidity 95% at 55°C)

ELSV compliance(Extra Low Safety Voltage)for 12/24/48vac versions

The product control conforms to the SELV(safety extra low voltage)requirements

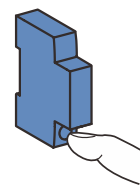
(1)In the case of contactor mounting in a enclosure for which the interior temperature is in range between 50 °C and 60 °C,it is necessary to use a spacer, between each contactor



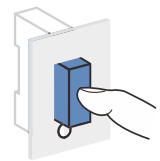
Clip on DIN rail 35 mm



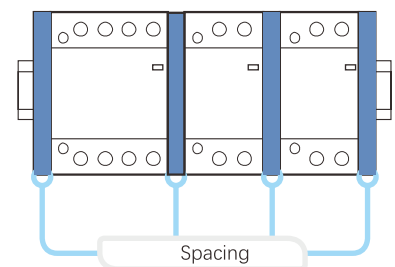
±30°vertical.



IP20

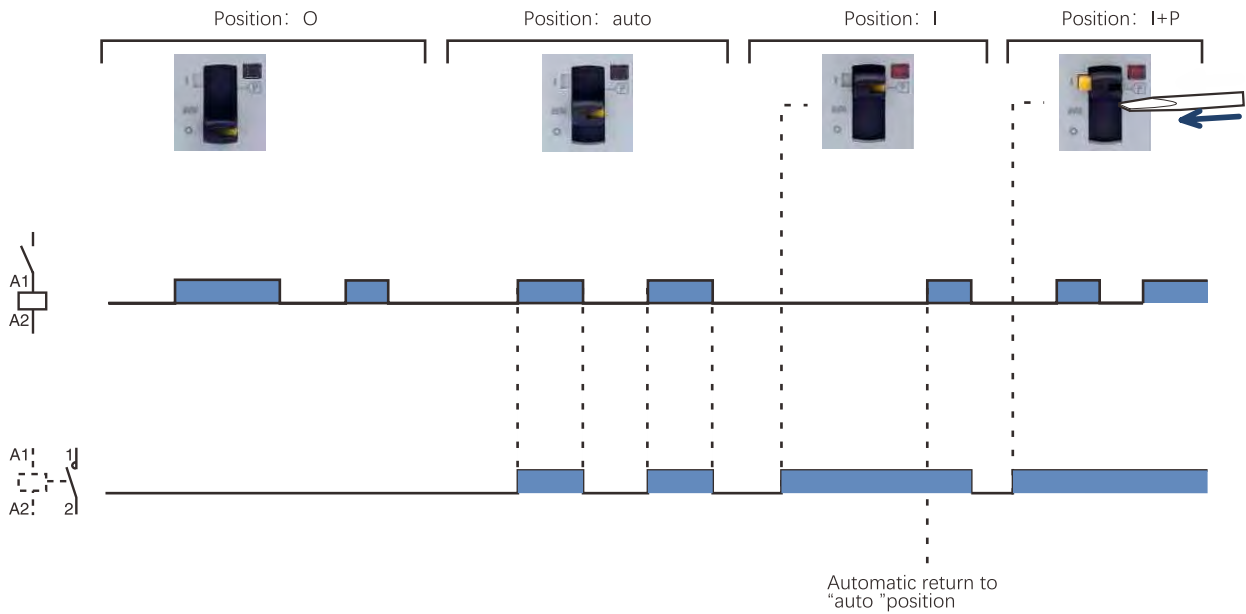


IP40

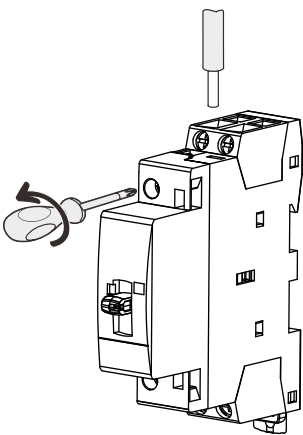




Spacing

## Operation(Manual control contactor)



## Connection parameter



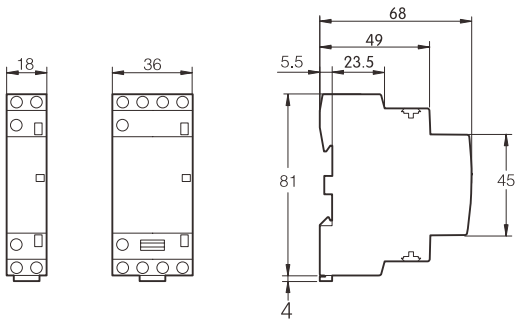
Type	Rating	Length tripping	Circuit	Tightening torque	Copper cables	
					Rigid	Flexible or ferrule
ECH8	PZ1:4mm 16-100A 16and25A	9mm	Control	0.8N.m		
					1.5~2.5mm <sup>2</sup> 2 × 1.5mm <sup>2</sup>	1.5~2.5mm <sup>2</sup> 2 × 2.5mm <sup>2</sup>
	PZ2:6mm 40A-63A 100A	14mm	Power	3.5N.m	6~25mm <sup>2</sup>	6~16mm <sup>2</sup>
					6~35mm <sup>2</sup>	6~35mm <sup>2</sup>
BACTs	PZ1:4mm	9mm	-	0.8N.m	1.5~2.5mm <sup>2</sup> 2 × 1.5mm <sup>2</sup>	1.5~2.5mm <sup>2</sup> 2 × 2.5mm <sup>2</sup>

## Packing information

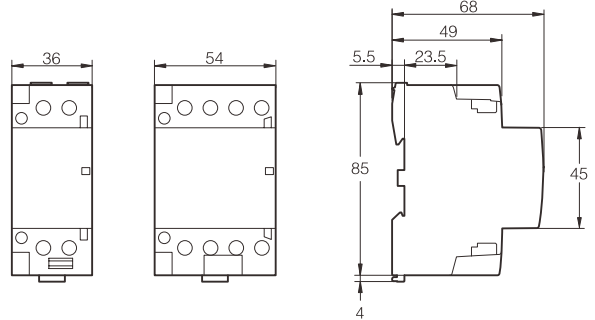
Poles	Rated Current (A)	BOX QTY	CTN QTY	Automatic Contactor		Manual Contactor		CARTON SIZE (mm)
				G.W.(kg)	N.W.(kg)	G.W.(kg)	N.W.(kg)	
AC 1P	16	12	120	16.3	14.1	16.3	14.1	500 × 260 × 190
	20	12	120	16.3	14.1	16.3	14.1	500 × 260 × 190
	25	12	120	16.3	14.1	16.3	14.1	500 × 260 × 190
AC 2P	16	12	120	16.3	14.1	16.3	14.1	500 × 260 × 190
	20	12	120	16.3	14.1	16.3	14.1	500 × 260 × 190
	25	12	120	16.3	14.1	16.3	14.1	500 × 260 × 190
	32	6	60	15.7	13.9	15.7	13.9	500 × 260 × 190
	40	6	60	15.7	13.9	15.7	13.9	500 × 260 × 190
	63	6	60	15.7	13.9	15.7	13.9	500 × 260 × 190
	100	4	40	13.6	12.7	-	-	500 × 260 × 190
AC 3P	16	6	60	14.2	12.4	14.2	12.4	500 × 260 × 190
	20	6	60	14.2	12.4	14.2	12.4	500 × 260 × 190
	25	6	60	14.2	12.4	14.2	12.4	500 × 260 × 190
	32	4	40	15.0	13.3	15.0	13.3	500 × 260 × 190
	40	4	40	15.0	13.3	15.0	13.3	500 × 260 × 190
	63	4	40	15.0	13.3	15.0	13.3	500 × 260 × 190
AC 4P	16	6	60	14.2	12.3	13.9	12.3	500 × 260 × 190
	20	6	60	14.2	12.3	13.9	12.3	500 × 260 × 190
	25	6	60	14.2	12.3	13.9	12.3	500 × 260 × 190
	32	4	40	15.0	13.3	15.0	13.3	500 × 260 × 190
	40	4	40	15.0	13.3	15.0	13.3	500 × 260 × 190
	63	4	40	15.0	13.3	15.0	13.3	500 × 260 × 190
	100	2	30	20.1	18.8	-	-	500 × 260 × 190
DC 2P	16	12	120	16.3	14.1	16.3	14.1	500 × 260 × 190
	20	12	120	16.3	14.1	16.3	14.1	500 × 260 × 190
	25	12	120	16.3	14.1	16.3	14.1	500 × 260 × 190
AC/DC 2P	32	6	60	15.7	13.9	15.7	13.9	500 × 260 × 190
	40	6	60	15.7	13.9	15.7	13.9	500 × 260 × 190
	63	6	60	15.7	13.9	15.7	13.9	500 × 260 × 190
AC/DC 4P	16	6	60	14.2	12.4	14.2	12.4	500 × 260 × 190
	20	6	60	14.2	12.4	14.2	12.4	500 × 260 × 190
	25	6	60	14.2	12.4	14.2	12.4	500 × 260 × 190
	32	4	40	15.0	13.3	15.0	13.3	500 × 260 × 190
	40	4	40	15.0	13.3	15.0	13.3	500 × 260 × 190
	63	4	40	15.0	13.3	15.0	13.3	500 × 260 × 190
AC/DC 4P ( Duplex Winding )	32	4	40	15.0	13.3	15.0	13.3	500 × 260 × 190
	40	4	40	15.0	13.3	15.0	13.3	500 × 260 × 190
	63	4	40	15.0	13.3	15.0	13.3	500 × 260 × 190

Type	Box Qty	CTN Qty	G.W.(kg)	N.W.(kg)	Carton Size (mm)
Auxiliary Contacts	12	120	5.56	3.96	500 × 260 × 190
3mm Spacing piece	72	720	5.56	3.36	500 × 260 × 190
9mm spacing piece	24	360	6.38	5.18	455 × 230 × 240

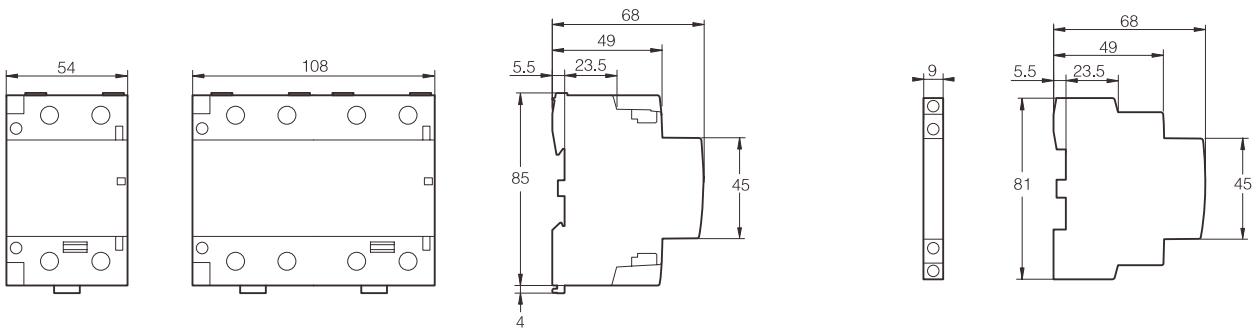
## Product dimensions ( mm)



ECH8-16/20/25A

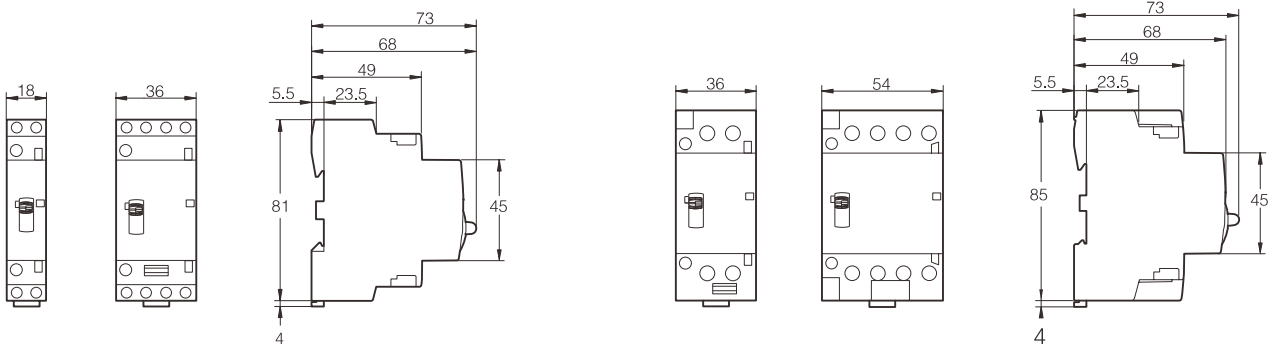


ECH8 32/40/63A



ECH8 100A

BACTs



ECH8 Manual Contactor 16/20/25A

ECH8 Manual Contactor 32/40/63A

Modular contactors and impulse relays do not use the same technologies. Their rating is determined according to different standards and does not correspond to the rated current of the circuit. For example, for a given rating, an impulse relay is more efficient than a modular contactor for the control of light fittings with a strong inrush current, or with a low power factor (non-compensated inductive circuit)

### Relay rating

- The table below shows the maximum number of light fittings for each relay, according to the type, power and configuration of a given lamp. As an indication, the total acceptable power is also mentioned.
  - These values are given for a 230 V circuit with 2 active conductors (single-phase phase/neutral or two-phase phase/phase). For 110 V circuits, divide the values in the table by 2.
  - To obtain the equivalent values for the entire 230 V three-phase circuit, multiply the number of lamps and the maximum power output:
    - by (1.73) for circuits with 230 V between phases without neutral;
    - by for circuits with 230 V between phase and neutral or 400 V between phases.
- Note: The power ratings of the lamps most commonly used are shown in bold. For powers not mentioned, use a proportional rule with the nearest values.

### Choice table

Products		ECH8 Modularcontactors						
Type of lamp	Unit power and capacitance of power factor correction capacitor	Maximum number of light fittings for a single-phase circuit and maximum power output						
		16 A		25 A		40 A		
<b>Basic incandescent lamps, LV halogen lamps, replacement mercury vapour lamps (without ballast)</b>								
	40 W	38	<b>1550 W</b>	57	<b>2300 W</b>	115	<b>4600 W</b>	
	60 W	30	to	45	to	85	to	
	75 W	25	<b>2000 W</b>	38	<b>2850 W</b>	70	<b>5250 W</b>	
	100 W	19		28		50		
	150 W	12		18		35		
	200 W	10		14		26		
	300 W	7	<b>2100 W</b>	10	<b>3000 W</b>	18	<b>5500 W</b>	
	500 W	4		6		10	to	
	1000 W	2		3		6	<b>6000 W</b>	
	1500 W	1		2		4		
<b>ELV 12 or 24 V halogen lamps</b>								
With ferromagnetic transformer	20 W	15	<b>300 W</b>	23	<b>450 W</b>	42	<b>850 W</b>	
	50 W	10	to	15	to	27	to	
	75 W	8	<b>600 W</b>	12	<b>900 W</b>	23	<b>1950 W</b>	
	100 W	6		8		18		
With electronic transformer	20 W	62	<b>1250 W</b>	90	<b>1850 W</b>	182	<b>3650 W</b>	
	50 W	25	to	39	to	76	to	
	75 W	20	<b>1600 W</b>	28	<b>2250 W</b>	53	<b>4200 W</b>	
	100 W	16		22		42		
<b>Fluorescent tubes with starter and ferromagnetic ballast</b>								
1 tube without compensation <sup>(1)</sup>	15W	22	<b>330 W</b>	30	<b>450 W</b>	70	<b>1050 W</b>	
	18 W	22	to	30	to	70	to	
	20 W	22	<b>850 W</b>	30	<b>1200 W</b>	70	<b>2400 W</b>	
	36 W	20		28		60		
	40 W	20		28		60		
	58 W	13		17		35		
	65 W	13		17		35		
	80 W	10		15		30		
	115 W	7		10		20		
1 tube without parallel compensation <sup>(2)</sup>	15 W	5 µF	15	<b>200 W</b>	20	<b>300 W</b>	40	<b>600 W</b>
	18 W	5 µF	15	to	20	to	40	to
	20 W	5 µF	15	<b>800 W</b>	20	<b>1200 W</b>	40	<b>2400 W</b>
	36 W	5 µF	15		20		40	
	40 W	5 µF	15		20		40	
	58 W	7 µF	10		15		30	
	65 W	7 µF	10		15		30	
	80 W	7 µF	10		15		30	
	115 W	16 µF	5		7		14	
2 or 4tube with series compensation	2 x 18 W	30	<b>1100 W</b>	46	<b>1650 W</b>	80	<b>2900 W</b>	
	4 x 18 W	16	to	24	to	44	to	
	2 x 36 W	16	<b>1500 W</b>	24	<b>2400 W</b>	44	<b>3800 W</b>	
	2 x 58 W	10		16		27		
	2 x 65 W	10		16		27		
	2 x 80 W	9		13		22		
2 x 115W	6		10		16			

## Choice table (cont.)

Products			ECH8 Modular contactors					
Type of lamp	Unit power and capacitance of power factor correction capacitor		Maximum number of light fittings for a single-phase circuit and maximum power output per circuit					
			16 A	16 A	25 A	40 A		
<b>Fluorescent tubes with electronic ballast</b>								
1 or 2 tubes	18 W		74	1300 W	111	2000 W	222	4000 W
	36 W		38	to	58	to	117	to
	58 W		25	1400 W	37	2200 W	74	4400 W
	2 x 18 W		36		55		111	
	2 x 36 W		20		30		60	
	2 x 58 W		12		19		38	
<b>Compact fluorescent lamps</b>								
With external electronic ballast	5 W		210	1050 W	330	1650 W	670	3350 W
	7 W		150	to	222	to	478	to
	9 W		122	1300 W	194	2000 W	383	4000 W
	11 W		104		163		327	
	18 W		66		105		216	
	26 W		50		76		153	
With integral electronic ballast (replacement for incandescent lamps)	5 W		160	800 W	230	1650 W	470	2350 W
	7 W		114	to	164	to	335	to
	9 W		94	900 W	133	1300 W	266	2600 W
	11 W		78		109		222	
	18 W		48		69		138	
	26 W		34		50		100	
<b>High-pressure mercury vapour lamps with ferromagnetic ballast without ignitor Replacement high-pressure sodium vapour lamps with ferromagnetic ballast with integral ignitor (3)</b>								
Without compensation (1)	50W		15	750 W	20	1000 W	34	1700 W
	80W		10	to	15	to	27	to
	125 / 110 W <sup>(3)</sup>		8	1000 W	10	1600 W	20	2800 W
	250 / 220 W <sup>(3)</sup>		4		6		10	
	400 / 350 W <sup>(3)</sup>		2		4		6	
	700 W		1		2		4	
With parallel compensation (2)	50W	7 µF	10	500 W	15	750 W	28	1400 W
	80W	8 µF	9	to	13	to	25	to
	125 / 110 W <sup>(3)</sup>	10 µF	9	1400 W	10	1600 W	20	3500 W
	250 / 220 W <sup>(3)</sup>	18 µF	4		6		11	
	400 / 350 W <sup>(3)</sup>	25 µF	3		4		8	
	700 W	40 µF	2		2		5	
1000 W	60 µF	0		1		3		
<b>Low-pressure sodium vapour lamps with ferromagnetic ballast with external ignitor</b>								
Without compensation (1)	5W		5	270 W	9	320 W	14	500 W
	55 W		5	to	9	to	14	to
	90 W		3	360 W	6	720 W	9	1100 W
	135 W		2		4		6	
	180 W		2		4		6	
	With parallel compensation (2)	5W	20 µF	3	100 W	5	175 W	10
55 W		20 µF	3	to	5	to	10	to
90 W		26 µF	2	180 W	4	360 W	8	720 W
135 W		40 µF	1		2		5	
180 W		45 µF	1		2			

depend on loading and current selection table

Products		ECH8 Modular contactors						
Type of lamp	Unit power and capacitance of power factor correction capacitor		Maximum number of light fittings for a single-phase circuit and maximum power output per circuit					
			16 A	25 A	40 A			
<b>High-pressure sodium vapour lamps Metal-iodide lamps</b>								
With ferromagnetic ballast with external ignitor, without compensation (1)	35 W		16	600 W	24	850 W	42	1450 W
	70 W		8		12	to	20	to
	150 W		4		7	1200 W	13	2000 W
	250 W		2		4		8	
	400 W		1		3		5	
	1000 W		0		1		2	
With ferromagnetic ballast with external ignitor and parallel compensation (2)	35 W		12	450 W	18	650 W	31	1100 W
	70 W		6	to	9	to	16	to
	150 W		4	1000 W	6	2000 W	10	4000 W
	250 W		3		4		7	
	400 W		2		3		5	
	1000 W		1		2		3	
2000 W		0		1		2		
With electronic ballast	35 W		24	850 W	38	1350 W	68	2400 W
	70 W		18	to	29	to	51	to
	150 W		9	1350 W	14	2200 W	26	4000 W
<b>LED lamps</b>								
With driver	10 W		48	500 W	69	700 W	98	1000 W
	30 W		38	to	54	to	77	to
	50 W		27	1400 W	39	1950 W	56	3000 W
	75 W		17		25		36	
	150 W		9		12		18	
	200 W		7		9		15	

(1)Circuits with non-compensated ferromagnetic ballasts consume twice as much current for a given lamp power output. This explains the small number of lamps in this configuration.

(2)The total capacitance of the power factor correction capacitors in parallel in a circuit limits the number of lamps that can be controlled by a contactor. The total downstream capacitance of a modular contactor of rating 16, 25, 40 or 63 A should not exceed 75, 100, 200 or 300 $\mu$ F respectively. Allow for these limits to calculate the maximum acceptable number of lamps if the capacitance values are different from those in the table.

(3)High-pressure mercury vapour lamps without ignitor, of power 125, 250 and 400 W, are gradually being replaced by high-pressure sodium vapour lamps with integral ignitor, and respective power of 110, 220 and 350 W.

## Heating application

- Contactor rating to be chosen according to the power to be controlled and the number of operations a day

### 230 V heating

Type of heating application	Maximum power for a given rating ECH8 Modular contactor	
	25 A	40 A
25	5.4 kW	8.6 kW
50	5.4 kW	8.6 kW
75	4.6 kW	7.4 kW
100	4 kW	6 kW
250	2.5 kW	3.8 kW
500	1.7 kW	2.7 kW

### 400 V heating

25	16 kW	26 kW
50	16 kW	26 kW
75	14 kW	22 kW
100	11 kW	17 kW
250	5 kW	8 kW
500	3.5 kW	6 kW

## Small motor application

- Contactor rating to be chosen according to the power to be controlled

### Asynchronous single-phase motor with capacitor

Small motor application type	Maximum power for a given rating ECH8 Modular contactor	
	25 A	40 A
Voltage	25 A	40 A
230 V	1.4	2.5

### Asynchronous three-phase motor

400 V	4	7.5
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### Universal motor

230 V	0.9	1.4
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## ECH8 Modular contactor loading type characteristics

- IEC61095 Standard suitable for residential with similar use . Its Different with IEC60947-4 (Its for industrial use ). It is also has specials require for staff and equipments safty.

Application	Industry IEC 60947-4	Residential IEC 61095
Motor	AC3	AC7b
Heating	AC1	AC7a
Lighting	Ac5a and b	Ac5a and b





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**Safety Is On**

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