BCH8 Modular contactor

High degree of Electrical life

The BCH8 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 BCH8 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 BCH8 contactor has an optimized electromagnetic system, which greatly reduces the holding power of contactor.。

Compact design

The width of BCH8 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

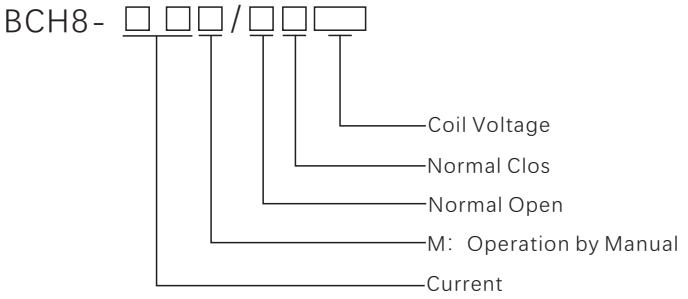
The BCH8 contactor can be extended with auxiliary contacts on the right side of the product, which is more suitable for signal feedback requirements in an intelligent control environment

Applicable scope

The BCH8 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 100A, 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.

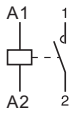
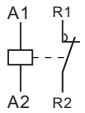
The BCH8 contactors according to standard IEC/EN61095， IEC60947-4-1and are used mainly in buildings for switching and controlling lighting, heating, ventilation and pumps. They are part of the complete range of Din rail products and can be integrated easily in dedicated panels.

AC24~240V Modular contactor

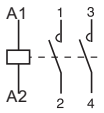
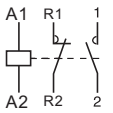
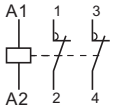


(eg. BCH8-25/20 230V . It is 25A , 2NO ,230V AC current coil voltage)

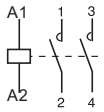
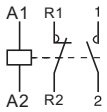
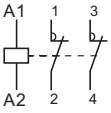
AC 1P,1modules

Contactor Model	Ie Rating		Uc (V AC)(50Hz)	Circuit Diagram
	AC-7a	AC-7b		
BCH8-16/10	16A	6A	24 110 240	
BCH8-20/10	20A	7A		
BCH8-25/10	25A	9A		
BCH8-16/01	16A	6A	24 110 240	
BCH8-20/01	20A	7A		
BCH8-25/01	25A	9A		

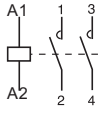
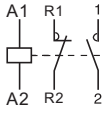
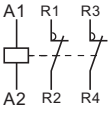
AC 2P,1modules

Contactor Model	Ie Rating		Uc (V AC)(50Hz)	Circuit Diagram
	AC-7a	AC-7b		
BCH8-16/20	16A	6A	24 110 240	
BCH8-20/20	20A	7A		
BCH8-25/20	25A	9A		
BCH8-16/11	16A	6A	24 110 240	
BCH8-20/11	20A	7A		
BCH8-25/11	25A	9A		
BCH8-16/02	16A	6A	24 110 240	
BCH8-20/02	20A	7A		
BCH8-25/02	25A	9A		

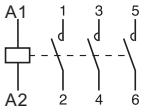
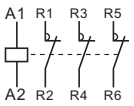
AC 2P,2modules

Contactor Model	Ie Rating		Uc (V AC)(50Hz)	Circuit Diagram
	AC-7a	AC-7b		
BCH8-32/20	32A	12A	24 110 240	
BCH8-40/20	40A	18A		
BCH8-63/20	63A	25A		
BCH8-32/11	32A	12A	24 110 240	
BCH8-40/11	40A	18A		
BCH8-63/11	63A	25A		
BCH8-32/02	32A	12A	24 110 240	
BCH8-40/02	40A	18A		
BCH8-63/02	63A	25A		

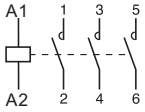
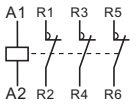
AC 2P,3modules

Contactor Model	Ie Rating	Uc (V AC)(50Hz)	Circuit Diagram
	AC-1		
BCH8-100/20	100A	24 110 240	
BCH8-100/11	100A	24 110 240	
BCH8-100/02	100A	24 110 240	

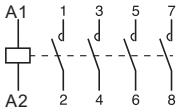
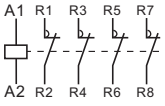
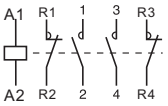
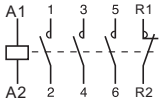
AC 3P,2modules

Contactor Model	Ie Rating		Uc (V AC)(50Hz)	Circuit Diagram
	AC-7a	AC-7b		
BCH8-16/30	16A	6A	24 110 240	
BCH8-20/30	20A	7A		
BCH8-25/30	25A	9A		
BCH8-16/03	16A	6A	24 110 240	
BCH8-20/03	20A	7A		
BCH8-25/03	25A	9A		

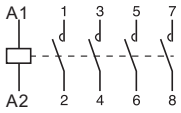
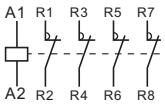
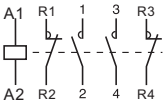
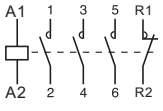
AC 3P,3modules

Contactor Model	Ie Rating		Uc (V AC)(50Hz)	Circuit Diagram
	AC-7a	AC-7b		
BCH8-32/30	32A	12A	24 110 240	
BCH8-40/30	40A	18A		
BCH8-63/30	63A	25A		
BCH8-32/03	32A	12A	24 110 240	
BCH8-40/03	40A	18A		
BCH8-63/03	63A	25A		

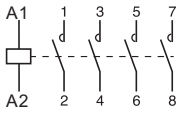
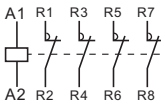
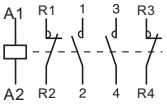
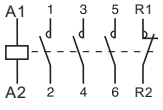
AC 4P,2modules

Contactor Model	Ie Rating		Uc (V AC)(50Hz)	Circuit Diagram
	AC-7a	AC-7b		
BCH8-16/40	16A	6A	24 110 240	
BCH8-20/40	20A	7A		
BCH8-25/40	25A	9A		
BCH8-16/04	16A	6A	24 110 240	
BCH8-20/04	20A	7A		
BCH8-25/04	25A	9A		
BCH8-16/22	16A	6A	24 110 240	
BCH8-20/22	20A	7A		
BCH8-25/22	25A	9A		
BCH8-16/31	16A	6A	24 110 240	
BCH8-20/31	20A	7A		
BCH8-25/31	25A	9A		

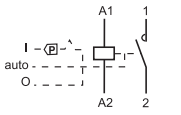
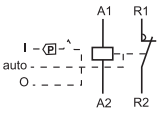
AC 4P,3modules

Contactor Model	Ie Rating		Uc (V AC)(50Hz)	Circuit Diagram
	AC-7a	AC-7b		
BCH8-32/40	32A	12A	24 110 240	
BCH8-40/40	40A	18A		
BCH8-63/40	63A	25A		
BCH8-32/04	32A	12A	24 110 240	
BCH8-40/04	40A	18A		
BCH8-63/04	63A	25A		
BCH8-32/22	32A	12A	24 110 240	
BCH8-40/22	40A	18A		
BCH8-63/22	63A	25A		
BCH8-32/31	32A	12A	24 110 240	
BCH8-40/31	40A	18A		
BCH8-63/31	63A	25A		

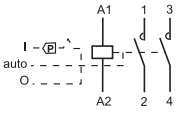
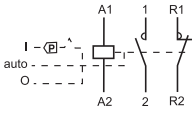
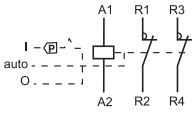
AC 4P,6modules

Contactor Model	Ie Rating	Uc (V AC)(50Hz)	Circuit Diagram
	AC-1		
BCH8-100/40	100A	24 110 240	
BCH8-100/04	100A	24 110 240	
BCH8-100/22	100A	24 110 240	
BCH8-100/31	100A	24 110 240	

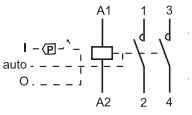
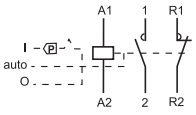
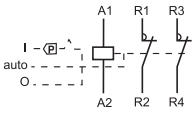
AC 1P,1modules

Contactor Model	Ie Rating		Uc (V AC)(50Hz)	Circuit Diagram
	AC-7a	AC-7b		
BCH8-16M/10	16A	6A	24 110 240	
BCH8-20M/10	20A	7A		
BCH8-25M/10	25A	9A		
BCH8-16M/01	16A	6A	24 110 240	
BCH8-20M/01	20A	7A		
BCH8-25M/01	25A	9A		

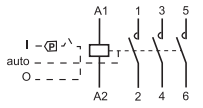
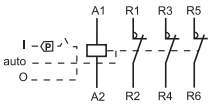
AC 2P,1modules

Contactor Model	Ie Rating		Uc (V AC)(50Hz)	Circuit Diagram
	AC-7a	AC-7b		
BCH8-16M/20	16A	6A	24 110 240	
BCH8-20M/20	20A	7A		
BCH8-25M/20	25A	9A		
BCH8-16M/11	16A	6A	24 110 240	
BCH8-20M/11	20A	7A		
BCH8-25M/11	25A	9A		
BCH8-16M/02	16A	6A	24 110 240	
BCH8-20M/02	20A	7A		
BCH8-25M/02	25A	9A		

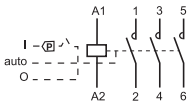
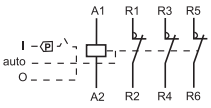
AC 2P,2modules

Contactor Model	Ie Rating		Uc (V AC)(50Hz)	Circuit Diagram
	AC-7a	AC-7b		
BCH8-32M/20	32A	12A	24 110 240	
BCH8-40M/20	40A	18A		
BCH8-63M/20	63A	25A		
BCH8-32M/11	32A	12A	24 110 240	
BCH8-40M/11	40A	18A		
BCH8-63M/11	63A	25A		
BCH8-32M/02	32A	12A	24 110 240	
BCH8-40M/02	40A	18A		
BCH8-63M/02	63A	25A		

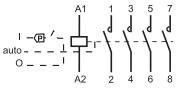
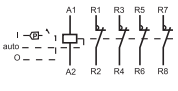
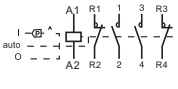
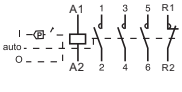
AC 3P,2modules

Contactor Model	Ie Rating		Uc (V AC)(50Hz)	Circuit Diagram
	AC-7a	AC-7b		
BCH8-16M/30	16A	6A	24 110 240	
BCH8-20M/30	20A	7A		
BCH8-25M/30	25A	9A		
BCH8-16M/03	16A	6A	24 110 240	
BCH8-20M/03	20A	7A		
BCH8-25M/03	25A	9A		

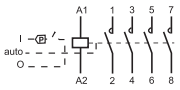
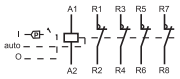
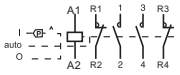
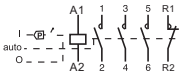
AC 3P,3modules

Contactor Model	Ie Rating		Uc (V AC)(50Hz)	Circuit Diagram
	AC-7a	AC-7b		
BCH8-32M/30	32A	12A	24 110 240	
BCH8-40M/30	40A	18A		
BCH8-63M/30	63A	25A		
BCH8-32M/03	32A	12A	24 110 240	
BCH8-40M/03	40A	18A		
BCH8-63M/03	63A	25A		

AC 4P,2modules

Contactor Model	Ie Rating		Uc (V AC)(50Hz)	Circuit Diagram
	AC-7a	AC-7b		
BCH8-16M/40	16A	6A	24 110 240	
BCH8-20M/40	20A	7A		
BCH8-25M/40	25A	9A		
BCH8-16M/04	16A	6A	24 110 240	
BCH8-20M/04	20A	7A		
BCH8-25M/04	25A	9A		
BCH8-16M/22	16A	6A	24 110 240	
BCH8-20M/22	20A	7A		
BCH8-25M/22	25A	9A		
BCH8-16M/31	16A	6A	24 110 240	
BCH8-20M/31	20A	7A		
BCH8-25M/31	25A	9A		

AC 4P,3modules

Contactor Model	Ie Rating		Uc (V AC)(50Hz)	Circuit Diagram
	AC-7a	AC-7b		
BCH8-32M/40	32A	12A	24 110 240	
BCH8-40M/40	40A	18A		
BCH8-63M/40	63A	25A		
BCH8-32M/04	32A	12A	24 110 240	
BCH8-40M/04	40A	18A		
BCH8-63M/04	63A	25A		
BCH8-32M/22	32A	12A	24 110 240	
BCH8-40M/22	40A	18A		
BCH8-63M/22	63A	25A		
BCH8-32M/31	32A	12A	24 110 240	
BCH8-40M/31	40A	18A		
BCH8-63M/31	63A	25A		

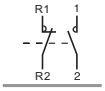
AC Modular contactor power consumption

Poles	Ie Rating		Uc (VAC)(50Hz)	Power consumption		Max Power
	AC-7a	AC-7b		Hold on	Pull in	
IP	16A	6A	230	2.99VA	11.5VA	1.2W
	20A	7A	230	2.99VA	11.5VA	1.2W
	25A	9A	230	2.99VA	11.5VA	1.2W
2P	16A	6A	230	2.99VA	11.5VA	1.2W
	20A	7A	230	2.99VA	11.5VA	1.2W
	25A	9A	24	3.05VA	11.5VA	1.3W
			230	2.99VA	11.5VA	1.2W
	32A	12A	230	4.37VA	31.05VA	1.6W
	40A	18A	230	4.37VA	31.05VA	1.6W
	63A	25A	230	4.37VA	31.05VA	1.6W
	100A	-	230	6.5VA	53VA	2.1W
3P	16A	6A	230	4.14VA	31.05VA	1.6W
	20A	7A	230	4.14VA	31.05VA	1.6W
	25A	9A	230	4.14VA	31.05VA	1.6W
	32A	12A	230	7.13VA	48.3VA	2.1W
	40A	18A	230	7.13VA	48.3VA	2.1W
	63A	25A	230	7.13VA	48.3VA	2.1W
4P	16A	6A	230	4.14VA	31.05VA	1.6W
	20A	7A	230	4.14VA	31.05VA	1.6W
	25A	9A	24	4.94VA	32.95VA	1.6W
			230	4.14VA	31.05VA	1.6W
	32A	12A	230	7.13VA	48.3VA	2.1W
	40A	18A	230	7.13VA	48.3VA	2.1W
	63A	25A	230	7.13VA	48.3VA	2.1W
	100A	-	230	13VA	106VA	4.2W

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.		
BCH8-AUC11	240V	5A	230V	2A	DC 130V	1A	5A	
BCH8-AUC20	240V	5A	230V	2A	DC 130V	1A	5A	

Spacing piece

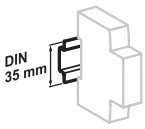
Spacers are used to reduce the temperature rise of devices mounted side by side. It is recommended to separate electronic equipment (temperature adjustment devices, programmable timer etc.) from electromechanical equipment (impulse relays, contactors)

	Technical specifications
Spacing piece	(9mm Multiples)

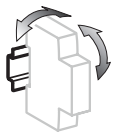
Main parameter and technical performance

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 vwltage(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℃~+60℃
Storage temperature		-40℃~+70℃
Tropicalization(IEC 60068.1)		Treatment 2 (relative humidity 95% at 55℃
ELSV compliance(Extra Low Safety Voltage)for 12/24/48vac versions		
The product control conforms to the SELV(safety extra low voltage)requirements		

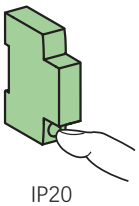
(1)In the case of contactor mounting in a enclosure for which the interior temperature is in range detween 50 ℃ and 60 ℃,it is necessary to use a spacer, between each contactor



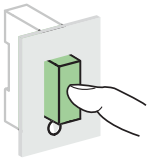
Clip on DIN rail 35 mm



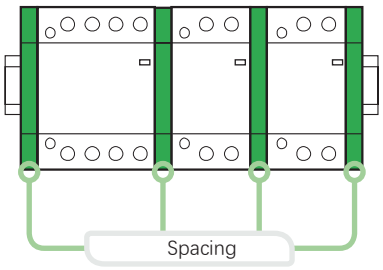
±30°vertical.



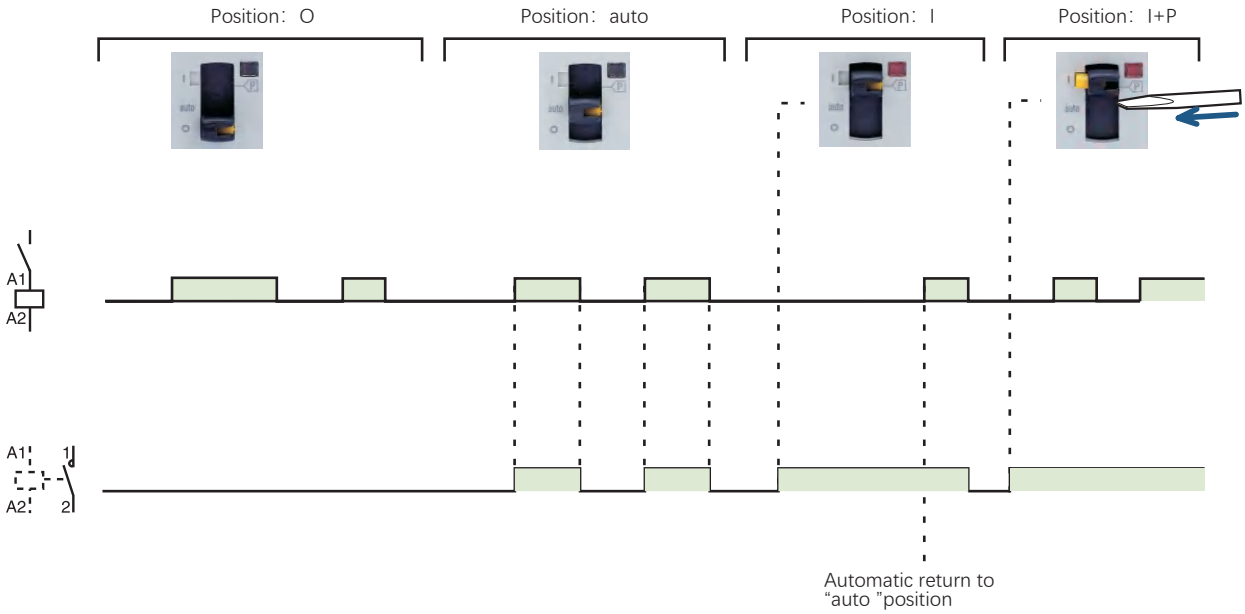
IP20



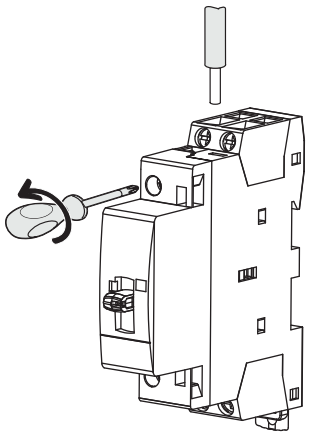
IP40



Operation(Manual control contactor)



Connection parameter



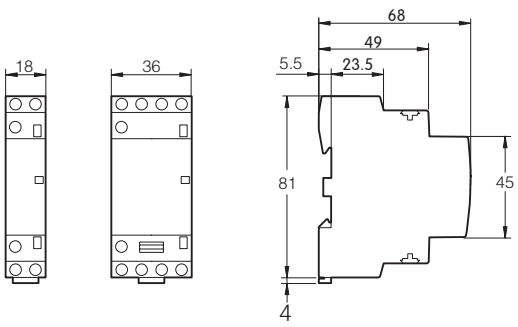
Type		Rating	Lenght tripping	Circuit	Tightening torque	Copper cables	
						Rigid	Flexible or ferrule
BCH8	PZ1:4mm	16-100A	9mm	Control	0.8N.m	1.5~2.5mm² 2×1.5mm²	1.5~2.5mm² 2×2.5mm²
		16and25A		Power		1.5~6mm²	1~4mm²
	PZ2:6mm	40A-63A	14mm		3.5N.m	6~25mm²	6~16mm²
		100A				6×3.5mm²	6~35mm²
BACTs	PZ1:4mm	-	9mm	-	0.8N.m	1.5~2.5mm² 2×1.5mm²	1.5~2.5mm² 2×2.5mm²

Packing information

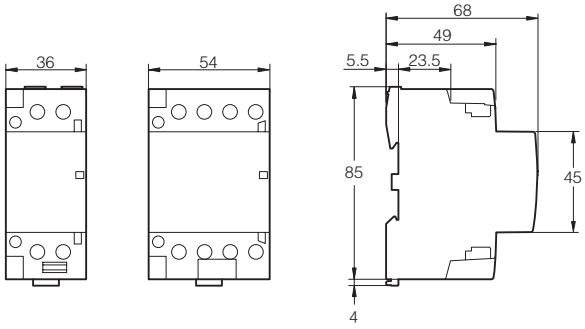
Poles	Rated Current (A)	BOX QTY	CTN QTY	Automatic Contactor		Manual Contactor		CARTON SIZE (mm)
				G.W.(kg)	N.W.(kg)	G.W.(kg)	N.W.(kg)	
AC 1P	16	12	120	15.4	13.8	15.4	13.8	500×260×190
	20	12	120	15.52	13.92	15.52	13.92	500×260×190
	25	12	120	15.52	13.92	15.52	13.92	500×260×190
AC 2P	16	12	120	15.4	13.8	15.4	13.8	500×260×190
	20	12	120	15.52	13.92	15.52	13.92	500×260×190
	25	12	120	15.52	13.92	15.52	13.92	500×260×190
	32	6	60	15.04	13.44	15.04	13.44	500×260×190
	40	6	60	15.04	13.44	15.04	13.44	500×260×190
	63	6	60	15.1	13.5	15.1	13.5	500×260×190
	100	4	40	14.08	12.48	-	-	500×260×190
AC 3P	16	6	60	13.9	12.3	13.9	12.3	500×260×190
	20	6	60	13.9	12.3	13.9	12.3	500×260×190
	25	6	60	13.9	12.3	13.9	12.3	500×260×190
	32	4	40	14.76	13.16	14.76	13.16	500×260×190
	40	4	40	14.76	13.16	14.76	13.16	500×260×190
	63	4	40	14.76	13.16	14.76	13.16	500×260×190
AC 4P	16	6	60	13.9	12.3	13.9	12.3	500×260×190
	20	6	60	13.9	12.3	13.9	12.3	500×260×190
	25	6	60	13.9	12.3	13.9	12.3	500×260×190
	32	4	40	14.76	13.16	14.76	13.16	500×260×190
	40	4	40	14.76	13.16	14.76	13.16	500×260×190
	63	4	40	14.76	13.16	14.76	13.16	500×260×190
	100	2	30	20.2	18.6	-	-	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
Spacing piece	24	360	6.38	5.18	455×230×240

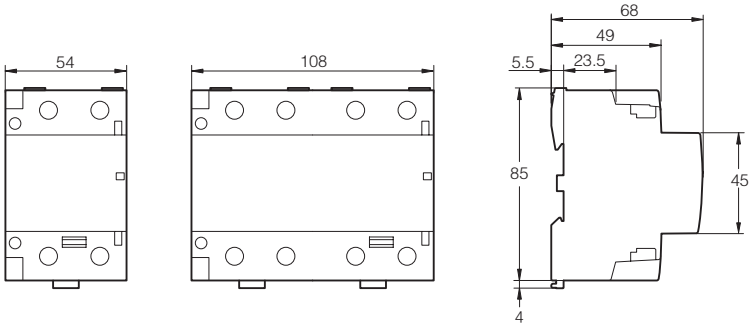
Product dimensions (mm)



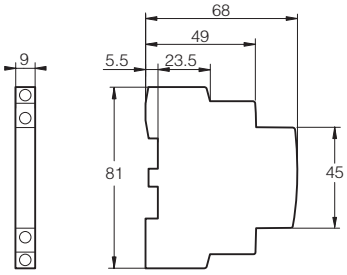
BCH8-16/20/25A



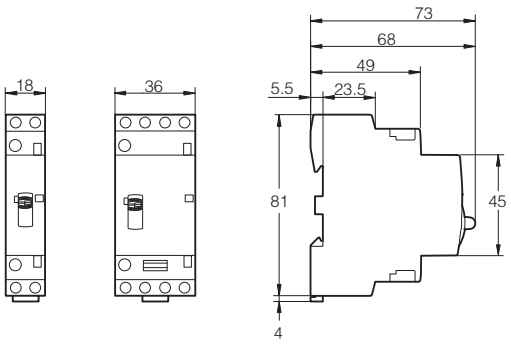
BCH8 32/40/63A



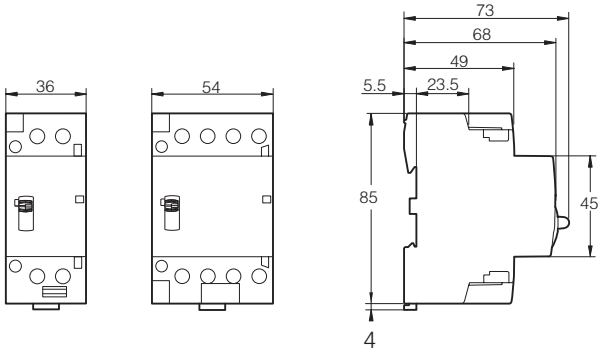
BCH8 100A



BACTs



BCH8 Manual Contactor16/20/25A



BCH8 Manual Contactor 32/40/63A

Choice of rating according to load type

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 lams 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			BIR Impulse relays		BCH8 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 per circuit 16 A		16 A		25 A		40 A	
Basic incandescent lamps, LV halogen lamps, replacement mercury vapour lamps (without ballast)										
	40 W		40	**1500 W**	38	**1550 W**	57	**2300 W**	115	**4600 W**
	60 W		25	to	30	to	45	to	85	to
	75 W		20	**1600 W**	25	**2000 W**	38	**2850 W**	70	**5250 W**
	100 W		16		19		28		50	
	150 W		10		12		18		35	
	200 W		8		10		14		26	
	300 W		5	**1500 W**	7	**2100 W**	10	**3000 W**	18	**5500 W**
	500 W		3		4		6		10	to
	1000 W		1		2		3		6	**6000 W**
	1500 W		1		1		2		4	
ELV 12 or 24 V halogen lamps										
With ferromagnetic transformer	20 W		70	**1350 W**	15	**300 W**	23	**450 W**	42	**850 W**
	50 W		28	to	10	to	15	to	27	to
	75 W		19	**1450 W**	8	**600 W**	12	**900 W**	23	**1950 W**
	100 W		14		6		8		18	
With electronic transformer	20 W		60	**1200 W**	62	**1250 W**	90	**1850 W**	182	**3650 W**
	50 W		25	to	25	to	39	to	76	to
	75 W		18	**1400 W**	20	**1600 W**	28	**2250 W**	53	**4200 W**
	100 W		14		16		22		42	
Fluorescent tubes with starter and ferromagnetic ballast										
1 tube without compensation (1)	15W		83	**1250 W**	22	**330 W**	30	**450 W**	70	**1050 W**
	18 W		70	to	22	to	30	to	70	to
	20 W		62	**1300 W**	22	**850 W**	30	**1200 W**	70	**2400 W**
	36 W		35		20		28		60	
	40 W		31		20		28		60	
	58 W		21		13		17		35	
	65 W		20		13		17		35	
	80 W		16		10		15		30	
	115 W		11		7		10		20	
1 tube without with parallel compensation (2)	15 W	5 µF	60	**900 W**	15	**200 W**	20	**300 W**	40	**600 W**
	18 W	5 µF	50		15	to	20	to	40	to
	20 W	5 µF	45		15	**800 W**	20	**1200 W**	40	**2400 W**
	36 W	5 µF	25		15		20		40	
	40 W	5 µF	22		15		20		40	
	58 W	7 µF	16		10		15		30	
	65 W	7 µF	13		10		15		30	
	80 W	7 µF	11		10		15		30	
	115 W	16 µF	7		5		7		14	
2 or 4tube with seriesl compensation	2 x 18 W		56	**2000 W**	30	**1100 W**	46	**1650 W**	80	**2900 W**
	4 x 18 W		28		16	to	24	to	44	to
	2 x 36 W		28		16	**1500 W**	24	**2400 W**	44	**3800 W**
	2 x 58 W		17		10		16		27	
	2 x 65 W		15		10		16		27	
	2 x 80 W		12		9		13		22	
	2 x 115W		8		6		10		16	

Choice table (cont.)

Products			BIR Impulse relays				BCH8 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	
Fluorescent tubes with electronic ballast												
1 or 2 tubes	18 W		80	1450 W to 1550 W			74	1300 W to 1400 W	111	2000 W to 2200 W	222	4000 W to 4400 W
	36 W		40				38		58		117	
	58 W		26				25		37		74	
	2 x 18 W		40				36		55		111	
	2 x 36 W		20				20		30		60	
	2 x 58 W		13				12		19		38	
Compact fluorescent lamps												
With external electronic ballast	5 W		240	1200 W to 1450 W			210	1050 W to 1300 W	330	1650 W to 2000 W	670	3350 W to 4000 W
	7 W		171				150		222		478	
	9 W		138				122		194		383	
	11 W		118				104		163		327	
	18 W		77				66		105		216	
	26 W		55				50		76		153	
With integral electronic ballast (replacement for incandescent lamps)	5 W		170	850 W to 1050 W			160	800 W to 900 W	230	1650 W to 1300 W	470	2350 W to 2600 W
	7 W		121				114		164		335	
	9 W		100				94		133		266	
	11 W		86				78		109		222	
	18 W		55				48		69		138	
	26 W		40				34		50		100	
High-pressure mercury vapour lamps with ferromagnetic ballast without ignito Replacement high-pressure sodium vapour lamps with ferromagnetic ballast with integral ignitor (3))												
Without compensation (1)	50W		Not tested, infrequent use				15	750 W to 1000 W	20	1000 W to 1600 W	34	1700 W to 2800 W
	80W						10		15		27	
	125 / 110 W (3)						8		10		20	
	250 / 220 W (3)						4		6		10	
	400 / 350 W (3)						2		4		6	
	700 W						1		2		4	
With parallel compensation (2)	50W	7 µF					10	500 W to 1400 W	15	750 W to 1600 W	28	1400 W to 3500 W
	80W	8 µF					9		13		25	
	125 / 110 W (3)	10 µF					9		10		20	
	250 / 220 W (3)	18 µF					4		6		11	
	400 / 350 W (3)	25 µF					3		4		8	
	700 W	40 µF					2		2		5	
	1000 W	60 µF					0		1		3	
Low-pressure sodium vapour lamps with ferromagnetic ballast with external ignitor												
Without compensation (1)	35W		Not tested, infrequent use				5	270 W to 360 W	9	320 W to 720 W	14	500 W to 1100 W
	55 W						5		9		14	
	90 W						3		6		9	
	135 W						2		4		6	
	180 W						2		4		6	
With parallel compensation (2)	35W	20 µF	38	1350 W	102	3600 W	3	100 W to 180 W	5	175 W to 360W	10	350 W to 720 W
	55 W	20 µF	24		63		3		5		10	
	90 W	26 µF	15		40		2		4		8	
	135 W	40 µF	10		26		1		2		5	
	180 W	45 µF	7		18		1		2			

Choice of rating according to load type

Products			BIR Impulse relays	BCH8 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
High-pressure sodium vapour lamps Metal-iodide lamps						
With ferromagnetic ballast with external ignitor,without compensation (1)	35 W		Not tested, infrequent use	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	6 µF	34 1200 W	12 450 W	18 650 W	31 1100 W
	70 W	12 µF	17 to	6 to	9 to	16 to
	150 W	20 µF	8 1350 W	4 1000 W	6 2000 W	10 4000 W
	250 W	32 µF	5	3	4	7
	400 W	45 µF	3	2	3	5
	1000 W	60 µF	1	1	2	3
	2000 W	85 µF	0	0	1	2
With electronic ballast	35 W		38 1350 W	24 850 W	38 1350 W	68 2400 W
	70 W		29 to	18 to	29 to	51 to
	150 W		14 2200 W	9 1350 W	14 2200 W	26 4000 W
LED lamps						
With driver	10 W		90 1000 W	48 500 W	69 700 W	98 1000 W
	30 W		45 to	38 to	54 to	77 to
	50 W		36 1800 W	27 1400 W	39 1950 W	56 3000 W
	75 W		23	17	25	36
	150 W		12	9	12	18
	200 W		9	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 300µF 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

●Impulse relay rating to be chosen according to the power to be controlled.

230 V heating		
Type	Maximum power for a given rating BIR impulse relays	
Single-phase circuit	16 A	32 A
Heating (AC1)	3.6 kW	7.2 kW

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

230 V heating		
Type of heatin application	Maximum power for a given rating BCH8 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	11kW	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 BCH8 Modular contactor	
Voltage	25 A	40 A
230 V	1.4	2.5
Asynchronous three-phase motor		
400 V	4	7.5
Universal motor		
230 V	0.9	1.4

BCH8 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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