

# Contactors

## Thermal overload relays

### BR16, BR30



- A three-pole overload relays for use with KNL6 to KNL30 and KNL6G to KNL30G contactors
- Used for overload protection of motors with operational currents up to 16 A (BR16) or 30 A (BR30) and operational voltages up to 690 V AC.
- Adjustable current setting
- Ambient temperature compensated
- Electrically isolated auxiliary contacts (1×NO and 1×NC)
- A RESET button provides both manual and automatic reset options
- A double trip lever provides sensitivity to phase loss in accordance with IEC/EN 60947-4-1.
- Degree of protection IP20

Setting ranges and maximum permitted back-up fuses

Type	Setting range (A)	Max. back-up fuse gL/gG (A)
BR16	0.1 - 0.16	1
	0.16 - 0.25	1
	0.25 - 0.4	1
	0.35 - 0.5	1
	0.45 - 0.63	1
	0.55 - 0.8	3
	0.75 - 1	3
	0.9 - 1.3	3
	1.1 - 1.6	3
	1.4 - 2	6
	1.8 - 2.5	6
	2.3 - 3.2	6
	2.9 - 4	10
	3.5 - 4.8	10
	4.5 - 6.3	15
	5.5 - 7.5	15
BR30	7.2 - 10	25
	9 - 12.5	30
	11.3 - 16	40
	15 - 20	50
BR30	17.5 - 21.5	50
	21 - 25	60
	24.5 - 30	70

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TECHNICAL DATA				CONTACTOR RELAYS		
GENERAL	Type			BR16	BR30	
	Standards			IEC / EN 60947-4-1, IEC / EN 60947-5-1, UL 508		
	Approvals			UL		
	For use with			KNL6-18, KNL6G-18G	KNL22, KNL30	
	Ambient temperature	open closed		°C	-5 ... +55 -5 ... +55	
	Terminal capacity			mm <sup>2</sup>	1...10 (main) 0.75...2.5 (auxiliary)	
	Screw	main terminals auxiliary terminals			M 4 M3.5	
	Screw head				PZ2	
	Tightening torque	main terminals auxiliary terminals		Nm	1.2 0.8	
	Dimensions (W×H×D)			mm	45×70.5×60	45×69×60
	Weight			kg	0.115	
MAIN CIRCUIT	Rated insulation voltage	$U_i$	V	690		
	Rated impulse withstand voltage	$U_{imp}$	kV	6		
	Rated operational voltage	$U_e$	V	690		
	Adjustable current	$I_r$	A	0.1...20	17.5...30	
	Rated frequency	$f$	Hz	50 / 60		
	Overvoltage category and pollution degree acc. to IEC/EN 60947-1			III / 3		
	Trip class acc. to IEC/EN 60947-4-1			10		
	Power loss	$P$	W	5...6.5 (depending on setting range)		
AUXILIARY CIRCUITS	Rated insulation voltage	$U_{i1}$	V	690		
	Rated impulse withstand voltage	$U_{imp}$	kV	6		
	Rated operational voltage	$U_e$	V	up to 500 (AC) up to 230 (DC)		
	Overvoltage category and pollution degree acc. to IEC/EN 60947-1			III / 3		
	Thermal current (both contacts)	$I_{th}$	A	6		
	Rated operational currents (both contacts)					
	AC-15	230 V 400 V 500 V	$I_e$	A	3 2 1	
	Rated operational currents (both contacts)	60 V 110 V 230 V	$I_e$	A	0.45 0.25 0.10	

#### CONNECTION DIAGRAM

#### DIMENSIONS

