

Type EEC Overload Relays

- ☒ UL 508 SB Supplement : 100,000 Amps
RMS SYM.Amps 480 Volts Max.
When Protected by Type CC or J Fuses.
- ☒ See page 12 for trip curve chart.
- ☒ Differential single phasing protection
- ☒ UL File # E303503
- ☒ AC or DC Motors

- ☒ Ambient compensated overloads from -40°F to + 158°F
Permitting no false tripping.
- ☒ Sealable setting overload with epoxy or paint
for critical applications
- ☒ Nema Class 10 design for "T" frame motors
Both N.O. (Alarm) and N.C. (trip) Contacts
- ☒ Plug on / bolt on to contactor design (Up to 93 Amps)

Part#	List Price	Plugs into Contactors
EEC 0.1 - 0.16A	\$ 36.00	<div>EEC 12</div> <div>EEC 18</div> <div>EEC 25</div> <div>EEC 32</div>
EEC 0.16 - 0.25A	\$ 36.00	
EEC 0.25 - 0.4A	\$ 36.00	
EEC 0.4 - 0.63	\$ 36.00	
EEC 0.63 - 1A	\$ 36.00	
EEC 1 - 1.6A	\$ 36.00	
EEC 1.6 - 2.5A	\$ 36.00	
EEC 2.5 - 4A	\$ 36.00	
EEC 4 - 6A	\$ 36.00	
EEC 5.5 - 8A	\$ 36.00	
EEC 7 - 10A	\$ 36.00	
EEC 9 - 13A	\$ 38.00	
EEC 12 - 18A	\$ 38.00	
EEC 17 - 25A	\$ 48.00	
EEC 23 - 32A	\$ 48.00	
EEC 28 - 36A	\$ 55.00	<div>EEC 25</div> <div>EEC 32</div>
EEC 30 - 40A	\$ 55.00	<div>EEC 40</div> <div>EEC 50</div> <div>EEC 65</div> <div>EEC 80</div> <div>EEC 95</div>
EEC 37 - 50A	\$ 60.00	
EEC 48 - 65A	\$ 80.00	
EEC 55 - 70A	\$ 80.00	
EEC 63 - 80A	\$ 102.00	
EEC 80 - 93A	\$ 102.00	
Below overloads Mount independent of Contactor (use wire to connect).		
EEC 65 - 105A	\$ 125.00	Or Optional Buss Bar Connections Below.
EEC 80 - 125A	\$ 140.00	
EEC 100 - 160A	\$ 240.00	
EEC 125 - 200A	\$ 250.00	
EEC 160 - 250A	\$ 260.00	
EEC 250 - 400A	\$ 390.00	
EEC 315 - 500A	\$ 460.00	
EEC 400 - 630A	\$ 580.00	
EEC 500 - 800A	\$ 640.00	

Overload Aux. Contacts

- Min. 5mA, 24V AC/DC
- Max 600VAC, 440VDC
- 5 Amp Thermal
- Ring Terminal capable
up to 40 Amps.



EEC 23-32A

For separate mounting

(independent overload without contactor)

up to 36 Amps , add "S" to part #

Up to 36 Amps add \$10.00

Price Example: \$ 55.00+\$10.00 = 65.00 EEC 28-36 AS

Separate Mount Accessories

Part #	For Overload Range	List Price
EEC - AD 25A	0.1 Amp to EEC 17 - 25 A	\$ 10.00
EEC - AD 36A	EEC 23 - 32A + EEC 28 - 36 A	\$ 10.00
EEC - AD 65A	EEC 30 - 40A + EEC 37 - 50 A EEC 48 - 65A	\$ 10.00

Overload Relay Features:

- 1) Trip indicator window
(turns yellow when tripped)
- 2) Stop button opens N.C. contacts 95/96
- 3) Depressing the test button causes the yellow indicator to appear ,and changes the contacts to their opposite state (N.O. closed + N.C. opens).
The reset button then changes them back.
- 4) Reset button resets a tripped overload.

Contactors to Overload Bus Bar Connection Kits For Overloads sizes EEC105A to EEC 200A	Part # (Includes 3 busbars)	For Contactors	List Price	Part # For Overload sizes EEC 250A to 400A	For Contactors	List Price
	EEC115-BBK1	EEC115	\$36.00	EEC185-BBK2	EEC185	\$60.00
	EEC150-BBK1	EEC150	\$40.00	EEC225-BBK2	EEC225	\$72.00
	EEC185-BBK1	EEC185	\$44.00	EEC265-BBK2	EEC265	\$88.00
	EEC225-BBK1	EEC225	\$44.00	EEC330-BBK2	EEC330	\$88.00
	EEC265-BBK1	EEC265	\$64.00	EEC400-BBK2	EEC400	\$88.00
	EEC330-BBK1	EEC330	\$64.00			
	EEC400-BBK1	EEC400	\$64.00			

Type ECX Overload Relays

Part#	List Price	Plugs into Contactors
ECX - .4-.63A	\$ 30.00	ECX 18 + ECX 32
ECX -.63-1A	\$ 30.00	
ECX - 1-1.6A	\$ 30.00	
ECX - 1.25-2A	\$ 30.00	
ECX -1.6-2.5A	\$ 30.00	
ECX -2.5-4A	\$ 30.00	
ECX -4-6A	\$ 30.00	
ECX -5.5-8A	\$ 30.00	
ECX -7-10A	\$ 30.00	
ECX -9-13A	\$ 30.00	
ECX -12-18A	\$ 30.00	
ECX -17-25A	\$ 30.00	
ECX -23-32A	\$ 38.00	ECX 32
ECX -28-36A	\$ 38.00	
ECX95-23-32A	\$ 52.00	ECX 65 ECX 95
ECX -30-40A	\$ 52.00	
ECX -37-50A	\$ 52.00	
ECX -48-65A	\$ 52.00	
ECX -63-80A	\$ 52.00	
ECX -80-93A	\$ 52.00	
ECX -80-125A	\$ 190.00	ECX 225 ECX 265 ECX 400 ECX 500 ECX 630
ECX -125-200A	\$ 190.00	
ECX -200-315A	\$ 340.00	
ECX -315-500A	\$ 350.00	
ECX -400-630A	\$ 360.00	

- ☒ Reliable Motor Protection
- ☒ Precise factory set and tested heaters
- ☒ Both N.O. (Alarm) and N.C. (trip) Contacts
- ☒ Plug on / bolt on to contactor design
- ☒ Tolerance short circuit 5KA RMS SYM., 600V Max
- ☒ Ambient compensated overloads from -4°F to + 122°F permitting no false tripping within temp range.
- ☒ Sealable setting overload for critical applications
- ☒ Nema Class 10 design for "T" frame motors
- ☒ Accepts Ring Terminals up to 36 Amps



Closed Sealable Overload
ECX23 - 32A Amp Setting
Window Open

Overload Relay Features

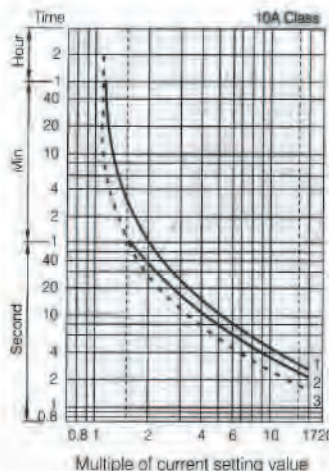
- 1) Trip indicator window (turns yellow when tripped)
- 2) Stop button opens N.C. contacts 95/96
- 3) Depressing the test button causes the yellow indicator to appear, and changes the contacts to their opposite state (N.O. closes + N.C. opens). The reset button then changes them back.
- 4) Reset button resets a tripped overload.

Separate Mount Accessories

Part #	For overload Range	List Price
ECX - AD 25A	0.4 Amp to ECX 17 - 25 A	10.00
ECX - AD 36A	ECX 23 - 32 + ECX 28 - 36 A	10.00
ECX - AD 93A	ECX 30-40 up to ECX 80 - 93A	20.00

Separate Mounted Overload Dimensions (mm)

Part #	Amp Range	Height	Width	Depth
ECX .4 - .63 AS- ECX 7 - 10 AS-	0.4 - 10A	83	45	75
ECX -9 - 13 AS ECX -17 - 25 AS	9 - 25A	72	45	100
ECX -23 - 32 AS ECX -28 - 36 AS	23 - 36A	90	55	100
ECX 95 - 23 - 32AS	23 - 32A	105	75	125
ECX 30 - 40 AS ECX 80 - 93 AS	30 - 93A	105	75	125



Protection Curve

1. Balance operation, three phase, start from the cold status.
2. Balance operation, two phase, start from the cold status.
3. Balance operation, three phase, start from the heat status.



Overload Relays Type B



Type

B18K

B55K

B90K

B160K

B375 K

Relay Settings

Low Range from / to A	0.16 - 0.26	18.5 - 25	110 - 140A	175 - 280A	175 - 280
High Range from / to A	30 - 40	90 - 110	140 - 190	200 - 310	430 - 700

Attachable to Contactors

Plug in	LS 4K - LS 18K	LS 22K - LS 55K	LS 75K - LS 90K		
Bus Connection				LS 110K - LS 160K	LS 220K - LS 375K



TYPE B 18K

Plug on Mount
(LS 4K, 5K, 7K, 11K, 15K, 18K)

Catalog #	Adjustable Amp Settings	List Price
B 18K - B	0.16 - 0.26	\$ 55.00
B 18K - C	0.25 - 0.41	\$ 55.00
B 18K - D	0.4 - 0.65	\$ 55.00
B 18K - E	0.65 - 1.1	\$ 55.00
B 18K - F	1 - 1.5	\$ 55.00
B 18K - G	1.3 - 1.9	\$ 55.00
B 18K - H	1.8 - 2.7	\$ 55.00
B 18K - I	2.5 - 4	\$ 55.00
B 18K - K	4 - 6.3	\$ 55.00
B 18K - L	5.5 - 8.5	\$ 55.00
B 18K - M	8 - 12	\$ 60.00
B 18K - N	10 - 16	\$ 60.00
B 18K - O	14.5 - 18	\$ 60.00
B 18K - OM	17.5 - 22	\$ 65.00
B 18K - ON	21 - 26	\$ 65.00
B 18K - P	25 - 32	\$ 75.00
B 18K - Q	30 - 40	\$ 90.00

For separate mount add "S" to above part #'s. Add \$12 to List
Example : B 18K - LS

Separate Mount Kit : Catalog # - B 18K - AD \$ 12 List



TYPE B 55K

Plug on Mount
(LS 22K, 30K, 37K, 45K, 55K)

Catalog #	Adjustable Amp Settings	List Price
B 55K - 25A	18.5 - 25	\$ 104.00
B 55K - 32A	24 - 32	\$ 104.00
B 55K - 43A	30 - 43	\$ 104.00
B 55K - 55A	42 - 55	\$ 104.00
B 55K - 65A	54 - 65	\$ 104.00
B 55K - 82A	64 - 82	\$ 155.00
B 55K - 97A	78 - 97	\$ 155.00
B 55K - 110A	90 - 110	\$ 155.00

For separate mount add "S" to above part #'s. Add \$ 20 to List Price

Example : B 55K - 43A^S

Seperate Mount Kit :

Catalog # B 55K - AD \$ 20 List



TYPE B 90K

Plug on Mount
(LS 75K, 90K)

Catalog #	Adjustable Amp Settings	List Price
B 90K - 140A	110 - 140	\$ 220.00
B 90K - 190A	140 - 190	\$ 220.00

Technical Data

Ambient Compensation
Temperature
-25 °C - +60 °C
(-11.2 °F - +140 °F)

N.O. /N.C.
Isolated Contacts

Single Phase Sensitive

Plug On / Bolt On
Design up to B90K

Consistent Operation with
Bi - Metallic Heater Elements
Precise & Factory
CALIBRATED

Trip Test
Button Built In

Shipped in Manual Reset
Mode.
Includes Automatic Reset
Option

Class 10 Tripping Class



TYPE B 160K
SEPARATE MOUNT
(LS 110K, 132K, 160K.)

Catalog No.	Amp Setting	List
B 160K-280A	175 - 280	\$ 460.00
B 160K-310A	200 - 310	\$ 523.00

In order to plug B160K overload into the contactor bus links are required.



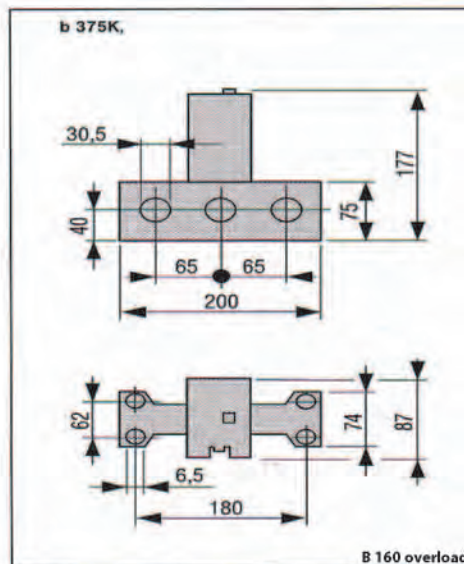
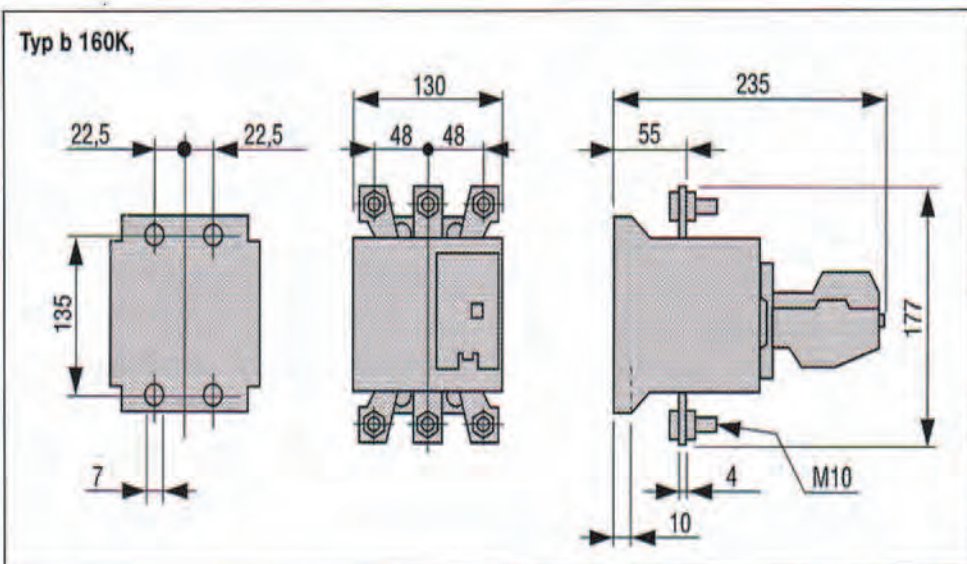
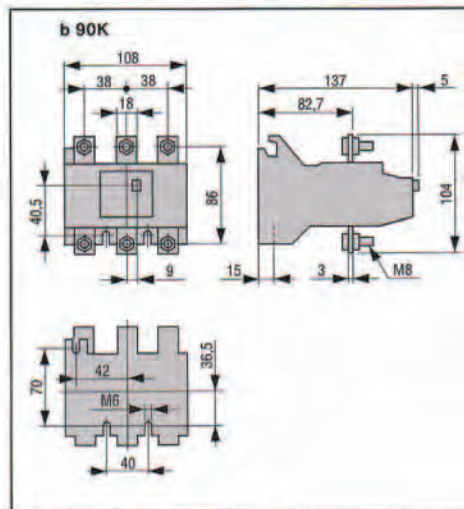
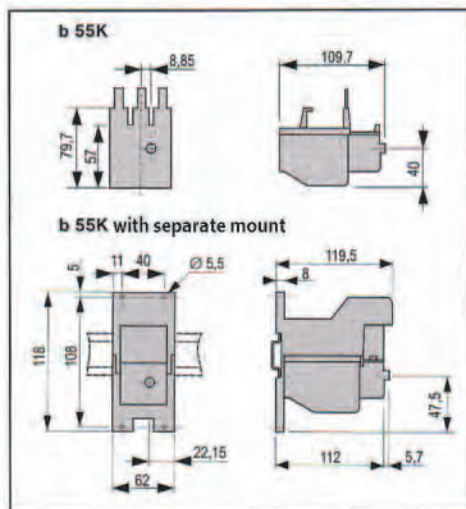
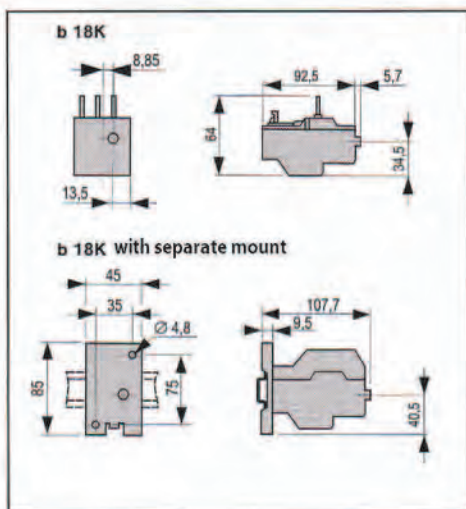
TYPE B 375K
SEPARATE MOUNT
(LS 220K, 280K, 375K.)

Catalog No.	Amp Setting	List
B 375K-280A	175 - 280	\$ 523.00
B 375K-400A	250 - 400	\$ 540.00
B 375K-500A	315 - 500	\$ 600.00
B 375K-700A	430 - 700	\$ 600.00

In order to plug B 375K overload into the contactor bus links are required.

DESCRIPTION	PART #	LIST
Bus link LS 110 K - 160 K	BL160	\$ 65.00

DESCRIPTION	PART #	LIST
Bus link LS 220K - 280K	BL280	\$ 65.00
Bus link LS 375K	BL375	\$ 65.00



IEC Utilization Categories (Explanation)

IEC Utilization Categories			
Voltage	Category	Typical Applications	IEC Product Standard 3
A.C.	AC-1	Non Inductive or slightly inductive loads, example: resistive furnaces, Heaters	947-4
	AC-2	Slip-ring motors: switching off	
	AC-3	Squirrel-cage motors: starting, switches off motors during running time <i>Most typical industrial application for motors</i>	
	AC-4	Squirrel-cage motors: starting, plugging (1), inching (2)	
	AC-5a	Switching of electric discharge lamps	
	AC-5b	Switching of incandescent lamps	
	AC-6a	Switching of transformers	
	AC-6b	Switching of capacitor banks	
	AC-7a	Slightly inductive loads in household appliances: examples: mixers, blenders	
	AC-7b	Motor-loads for household appliances: examples: fans, central vacuum	
	AC-8a	Hermetic refrigerant compressor motor control with manual resetting overloads	947-5
	AC-8b	Hermetic refrigerant compressor motor control with automatic resetting overloads	
	AC-12	Control of resistive loads and solid state loads with opto-coupler isolation	
	AC-13	Control of solid state loads with transformer isolation	947-3
	AC-14	Control of small electromagnetic loads	
	AC-15	Control of A.C. electromagnetic loads	
	AC-20	Connecting and disconnecting under no-load conditions	
	AC-21	Switching of resistive loads, including moderate loads	
	AC-22	Switching of mixed resistive and inductive loads, including moderate overloads	
	AC-23	Switching of motor loads or other highly inductive loads	
A.C. and D.C.	A	Protection of circuits, with no rated short-time withstand current	947-2
	B	Protection of circuits, with a rated short-time withstand current	
D.C.	DC-1	Non Inductive or slightly inductive loads, resistance furnaces, heaters	947-4
	DC-3	Shunt-motors, starting, plugging(1), inching(2), dynamic breaking of motors	
	DC-5	Series-motors, starting, plugging(1), inching(2), dynamic breaking of motors	
	DC-6	Switching of incandescent lamps	
	DC-12	Control of resistive loads and solid state loads with opto-coupler isolation	
	DC-13	Control of D.C. electromagnetics	947-5
	DC-14	Control of D.C. electromagnetic loads having economy resistors in the circuit	
	DC-20	Connecting and disconnecting under no-load conditions	
	DC-21	Switching of resistive loads, including moderate overloads	947-3
	DC-22	Switching of mixed resistive and inductive loads, including moderate overloads (i.e. shunt motors)	
	DC-23	Switching of highly inductive loads (i.e. series motors)	

(1) Plugging - Stopping a motor rapidly by reversing the incoming power connections.

(2) Inching - Energizing a motor repeatedly for short periods to obtain small incremental movements.



MINI CONTACTOR/STARTERS **TYPE LS05 - TYPE B05** **(20 Amps General Purpose)**

AEG

MINI CONTACTOR



Type LS05 Ratings **Maximum HP Ratings**

200 Volt	3 HP
230 Volt	3 HP
460 Volt	5 HP
600 Volt	5 HP
1 Phase	
110 Volt	1/2 HP
220 Volt	1.5 HP
15 AMP INDUCTIVE	
AC-1	20 Amp
*NOTE: 20 Amp General Purpose.	

MINI STARTER

Single Phase

Three Phase

MINI REVERSING CONTACTOR

Three Phase

MINI REVERSING STARTER

Single Phase

Three Phase

Four Poles

★ COIL VOLTAGE SUFFIX

AC★	60HZ	50HZ
-A	120V	110V
-C	208V/230V	220V
-E	480V	440V
-F	600V	550V
-D		380V
-G	24V	22V
-H	280V/277V	240V
DC★		
-MSW	12VDC	*Price Addition for DC Coil. \$10
-NSW	24VDC	
-OSW	48VDC	
-PSW	120VDC	
-RSW	220VDC	



TYPE SH05

MINI RELAYS

A.C. OPERATED

10 pole maximum with auxiliary

With Pressure Wire Screws Terminals

	Contacts	NO	NC	AC Operated	List
SH05.22-*	2	2			\$40
SH05.31-*	3	1			\$40
SH05.40-*	4	0			\$40

With Flat Plug (Spade) Connectors

OPEN 3 POLE	ENCLOSED		Auxiliary Contacts	
	NEMA 1 General Purpose	NEMA 4X Outdoor Dust Tight	NO	NC
•LS05.10-★0 \$89 List	LS05.10-★1 \$109 List	LS05.10-★4X \$132 List	1	0
•LS05.01-★0 \$40 List	LS05.01-★1 \$109 List	LS05.01-★4X \$132 List	0	1
••LS05.10F-★0 \$45 List			1	0
•Standard Screw Down Pressure Plate Terminal •• Spade Terminal				
SXLS05-★0-★★ \$89 List	SXLS05-★1-★★ \$161 List	SXLS05-★4X-★★ \$184 List	1	0
XLS05-★0-★★ \$89 List	XLS05-★1-★★ \$161 List	XLS05-★4X-★★ \$184 List	1	0
RLS05.10-★0 \$116 List	RLS05.10-★1 \$185 List	RLS05.10-★4X \$238 List	1	0
RLS05.01-★0 \$116 List	RLS05.01-★1 \$185 List	RLS05.01-★4X \$238 List	0	1
SRXLS05.11-★0-★★ \$171 List	SRXLS05.11-★1-★★ \$243 List	SRXLS05.11-★4X-★★ \$296 List	1	1
RXLS05.11-★0-★★ \$171 List	RXLS05.11-★1-★★ \$243 List	RXLS05.11-★4X-★★ \$296 List	1	1
OPEN 4 POLE				
•LS05-4.00-★0 \$40 List	LS05-4.00-★1 \$109 List	LS05-4.00-★4X \$132 List	0	0

Deduction for less wiring - \$10 list price from reversing contactor and reversing starter, add -LW to part #.

Part# example: RXLS05.11-A1-NN-LW \$233. Reversing Starter, 120V coil 10-14 AMP overload, in NEMA 1 Box, less wiring.

Dimensions: Contactor, W-1.8", H-1.9", Deep-2.2". Starter, W-1.8", H-3.8", Deep-2.2".

TYPE B05

OVERLOAD RELAY

TYPE HS AUXILIARY

Side Mount Front Mount



Type B05 Overload has 1N.C. pilot circuit contact included. If a N.O. additional contact is needed, P/N HB05-143 includes a N.O. Alarm Contact. See Below.

★★OVERLOAD

Suffix ★★	Amp Range	Complete Plug-On	List
-A	0.11-0.17	B05-A	\$55
-B	0.17-0.26	B05-B	\$55
-C	0.26-0.43	B05-C	\$55
-D	0.43-0.65	B05-D	\$55
-E	0.65- 1	B05-E	\$55
-F	0.85-1.3	B05-F	\$55
-G	1.1-1.6	B05-G	\$55
-GN	1.35-2	B05-GN	\$55
-H	1.7-2.4	B05-H	\$55
-IN	2.2-3.2	B05-IN	\$55
-JN	3-4.7	B05-JN	\$55
-K	4-6.3	B05-K	\$55
-L	5.5-8	B05-L	\$55
-M	7.5-10.5	B05-M	\$55
-NN	10-14	B05-NN	\$55

RESET EXTENDER

HB05-143 REQUIRED for overload use with external reset operation by reset plunger. Includes

N.O. Aux. Alarm Contact. #HB05-143 \$13.00 List

OVERLOAD ADAPTER

Terminal for Separate Mount B05-141-142 \$13.00 List (DIN Rail or Panel mountable)

LS05 Accessory Kits

Mechanical Interlock LS05-VB05 \$6
 Auxiliary Contacts 10 Amp 600V

	Normally			List
	Open	Closed		
Side Mount	1	0	HS05.10	\$12
	0	1	HS05.01	\$12
	2	0	HS05.20	\$13
	1	1	HS05.11	\$13
	0	2	HS05.02	\$13
	0	1	HS05.01-001	\$13
	1	2	HS05.12	\$16
	0	4	HS05.04	\$24
Front Mount	1	3	HS05.13	\$24
	2	2	HS05.22	\$24
	3	1	HS05.31	\$24
	4	0	HS05.40	\$24
Front Mount (with spade terminal)	0	1	HS05.01F	\$12
	1	2	HS05.12F	\$16
Timing Module	12-60 VAC		LS05-EV05-60	\$66
	90-240 VAC		LS05-EV05-240	\$66



Diagram with time delay module type EV 05

Type EV05 Timer
 Timer, delays coil operation.
 Adjustable 0.5-60 sec.

Surge Suppressor 12-60 VAC LS05-EB05-60 \$14
 72-240 VAC LS05-EB05-240 \$14

2 Parallel

Pole Connector

Spare Coils

★ See coil voltage suffix

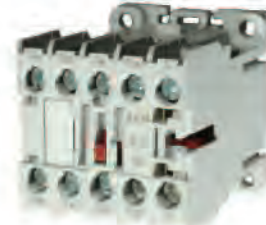
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SH05 MINI RELAY POSITIVE GUIDED

AEG

Type SH05 Mini Relays are designed for compact applications. The SH05 versatile Relay Accessories provide side mount as well as top mount auxiliaries, voltage suppressors, electronic timers and the means to mechanically interlock two relays. The combination of added auxiliaries give the adaptability to operate up to 10 poles Max.

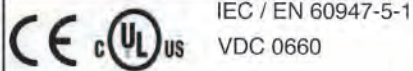


Technical Data

(SH05 Relay)

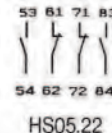
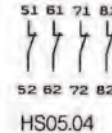
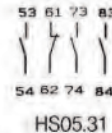
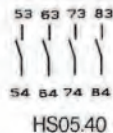
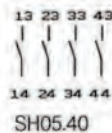
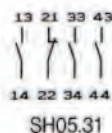
16 Amps thermal Ith
Operational temperature (-40 c - + 60 c)
Rated insulation voltage 660v
Mechanical life 10,000,000
Permissible switching frequency 1,200 opt hour
Terminal torque- 0.8Nm (7 lb in)
Wire size capability - standard 0.75-2.5(x2) 18 -14 gage
solid 0.75 - 2.(2x) 18 - 14 gage
Coil power consumption (AC) pick up -26VA
sealed - 4 va
Coil operating limits - (DC) pick up 3-watts
sealed 3 - watts
* Min operational power 5MA 17V
*(Special interface version available 1.2 watt 24 VDC.

Approvals

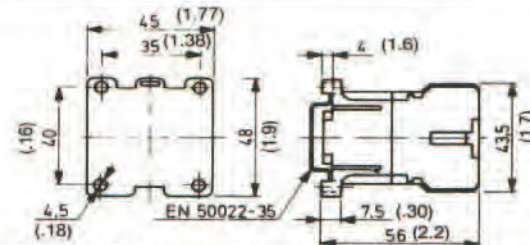


IEC / EN 60947-5-1
VDC 0660

Contact Configuration



Dimensional Data



AC Coil (DC Coil 1.8 = Depth)

External Auxiliary Contacts

Technical Data

10 Amp Ith (thermal)

Rated voltage and rated current Ue - Ie (IEC)

AC-15 according to IEC 60947 110/120V - 6A
220/240V - 6A
380/400V - 3A
500V - 1A
660/680V - 1A

according to UL, CSA A600


DC-13 according to IEC 60947 24V - 4A
48V - 2A
110V - 0.7A
220V - 0.3A
440V - 0.1A


according to UL, CSA Q600

**MINI RELAYS - POSITIVE GUIDED DESIGN
FOR SAFETY CIRCUITS**

**TYPE SH05
RELAY**
16 Amps 1th
AC/DC OPERATED RELAYS

With Pressure Wire Screw Terminals				
16 1th Amps	Contacts		AC Operated	DC Operated
	NO	NC	List	List
SH05. 22-*	2	2	\$ 40	\$ 50
SH05. 31-*	3	1	\$ 40	\$ 50
SH05. 40-*	4	0	\$ 40	\$ 50

Timers	Voltage	Part Number	List
	12-60 VAC	LS05-EV05-60	\$66
	90-240 VAC	LS05-EV05-240	\$66
Timer Module can be top mounted or side mounted to any SH05/LS05 Relay/Contactor.(AC/DC)			


Jumpers	Part Number	List Each
	LS05 - EB05	\$ 6
Parallel Pole Connector		


* Coil Voltage Suffix		
AC*	60HZ	50HZ
-A	120V	110V
-C	208V/230V	220V
-E	480 V	440V
-F	600V	550V
-D		380V
-G	24V	22V
-H	280V/277V	240V
DC*		
-MSW	12VDC	
-NSW	24VDC	
-OSW	48VDC	
-PSW	120VDC	
-RSW	220VDC	

Ordering - Replace astric * with coil voltage suffix from suffix chart below.



Part# Example:

2 N.O./N.C. 16 Amp Relay 120 Vac Coil
Part # SH05. 22-A

Surge Suppressors	Part Number	List Each
	12 - 60 VAC	LS05 - EB05 - 60 \$14
	72 - 240 VAC	LS05 - EB05 - 240 \$14

Replacement Coils	Part Number	List Each
	LK-C130 - *	\$ 20
* Replace with Coil Voltage Suffix From Chart above.		

Auxiliaries
(A600UL)

	NORMALLY OPEN	NORMALLY Closed	Part #	LIST
	1	0	HS05.10	\$12
	0	1	HS05.01	\$12
	2	0	HS05.20	\$13
	1	1	HS05.11	\$13
	0	2	HS05.02	\$13
	0	1	HS05.01-001	\$13
	1	2	HS05.12	\$24
	0	4	HS05.04	\$24
	1	3	HS05.13	\$24
	2	2	HS05.22	\$24
	3	1	HS05.31	\$24
	4	0	HS05.40	\$24



SH5 Positive Guided 20A Relays (20 Amp)

AEG

20 Amp AC & DC Positive Guided Relays

Space Saving Dimensions



**Positive Guided
Type SH5 Relays (4 pole)**

User Benefits

SH5 Relays are loaded with features permitting convenient to installation and allow more flexible configurations.

They conform to both international standards and US approvals. SH5 Relays included dual (US / European) marking to assure global acceptance.

Available Worldwide

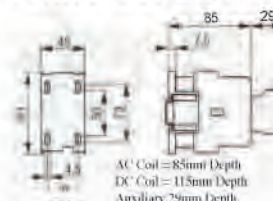
Recognized as one of the leading heavy duty industrial product lines. Type SH relays are available in over 100 countries including every industrial nation.

Industry Accepted & Preferred

Reliability demanding industries steel, oil, cement, chemical, automotive, widely use and demand type SH controls in their systems.

Part # with AC Coil * Add coil suffix	Poles		AC Coil Operation	DC Coil Operation
	NO	NC		
Basic 4 pole				
SH5.40-*	4	0	\$62	\$90
SH5.31-*	3	1	\$62	\$90
SH5.04-*	0	4	\$62	\$90
SH5.22-*	2	2	\$62	\$90
Adder poles Auxiliaries 10 Amps 4pole(top mount) (A600) Max Aux.				
LK-HS7K.10	1	0	\$12	\$12
LK-HS7K.01	0	1	\$12	\$12
*Auxiliaries not positive guided				
Auxiliaries (Side Mount) 10 Amps(A600)				
LK-HS8K.11	1	1	\$22	\$22
LK-HS8K.20	2	0	\$22	\$22
*Auxiliaries not positive guided				

Positive Guided Relays



AC Coil = 85mm Depth
DC Coil = 115mm Depth
Auxiliary 29mm Depth

Type

For critical safety circuits, self checking duplicate circuits can be required. The following type SH multipole relays have positive guided contacts. This "Positive Guided Design" Assures that no Normally Open contacts may be simultaneously closed with Normally closed contacts. In the event that a normally open contact welds in, the Normally closed contact will have a minimum Gap of 0.5mm.

"Positive Guided" contacts are not positive break or positive opening contacts.

* Added Auxiliaries to SH5 relays DO NOT meet positive guided safety circuit standards.
*Per the IEC safety standard (IEC 947-5-1)

Contact Rating Per Pole		
Max Voltage	AC-15 Amperes Rating	CONTINUOUS CARRYING CURRENT
AC-15		
230	10	20 AMP 1 th
400	10	
480	5	
600	4	
DC - 13	Amp Ratings	
24 V	6A	20 AMP 1 th
48 V	4A	
110 V	2A	
220 V	0.7A	
440 V	0.35A	

*Coil Voltage Suffix			
AC	60Hz	50Hz	DC
- A	120 V	110 V	- MSW 12VDC
- C	208 / 230 V	220 V	- NSW 24VDC
- D		380 V	- OSW 48VDC
- E	480 V	440 V	- PSW 120VDC
- F	600 V	550 V	- RSW 220VDC
- G	24 V	22 V	

Part # example SH5.40 - A = 120 VAC Coil

Discount Schedule ST