

# MINI CONTACTORS STARTERS POWER RELAYS

POSITIVE GUIDED RELAYS & CONTACTORS



# SERIES LS07 SPECIFICATIONS

- MC-1 (16 AMP 600 Volt)
- Mechanical Life Operations
- Maximum HP Ratings
  3 Phase
  460 Volt 3HP CE

# SERIES LS05 SPECIFICATIONS

- ✓ 15 Amp Inductive (UL) AC-1 (20 AMP 600 Volt)
- Mechanical Life Operations
  AC 10,000,000
- Maximum HP Ratings
  3 Phase
  460 Volt 5HP

#### **Connection Options LS07**

- Pressure Wire Terminals
- · Spade (Plug-On)
- PC Board (pin terminal) Low Coil Burden 1.2 Watt

#### Internationally Accepted

· CE, UL, IEC, S +, BS, VDE, CSA

#### Overload Relay Type B05

- Ambient Temperature Compensated
- Three Pole Plug-on Separate Mount
- Differential Single Phasing Protection

#### **Enclosures**

- M1 General Purpose
- M12 Dust Tight
- 4X Non Metal
- · Water & Dust Tight





# MINI CONTACTOR SYSTEM TYPE LS05 - TYPE B05

AEG

### CE

## 20 AMP GENERAL PURPOSE



# Type XLS05 STARTER with Auxiliary Contacts

INTERNATIONAL DATING

#### INTERNATIONAL RATINGS

**Technical Values** 

Туре	LS05
	SH05
Permissible ambient temperatu	re +60 C
Rated insulation voltage	660V
Mechanical lifespan	10,000,000
General Purpose Amps	20A
Permissible switching frequency	1200 ops/hr

 (d.c.)
 220V 0.6A

 Operating coil
 (Standard -20% - +10% - 10% closing 26VA

 Power consumption Holding Phs
 VA 4VA

Switching times at 1, 0 U<sub>S</sub>
(standard coil ') closing delay 7-12 MS

(standard coil ') closing delay 7-12 MS opening delay 6-13 MS

#### LS05 CONTACTOR SH05 RELAY B05 OVERLOAD RELAY

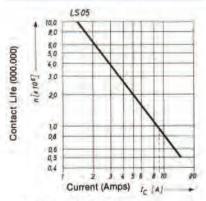
A stylish, and compact family of control relays, type SH05, contactors, type LS05, and overload relays, type B05. Complete with a comprehensive range of accessories, they provide the flexible solution for control systems.

A maximum 10 pole control relay, type SH05, with 6 auxiliary switches, is also available as a contactor, type LS05 with up to 6 auxiliary switches. Rated at 5 HP 480V, it has a high switching performance within its compact dimensions. Panel or DIN mountable.

Front mounting snap on auxiliary switch block, with up to 4 contacts in standard base module.



#### Type LS05 CONTACTOR



#### Contact life of the main contacts

The above diagram shows details of the contact life in relation to the breaking current, when switching resistive and inductive a.c. loads. The above does not relate to synchronising of phase position during switching.  $n = Contact \ Lifespan$   $I_C = Breaking \ current$ 

#### Contactor/Relay Accessories

A single pole auxiliary switch (1 N.O. or 1 N.C.) is available as an accessory, for side mounting, thus avoiding any increase in the high dimension.

Special auxiliary contacts for increased contact reliability at low voltages.

Front or side mounting time delay module 0.5 to 60 seconds.

Coil, overvoltage suppression module.

Mechanical interlock kit



#### Type B05 OVERLOAD RELAY

Thermal Overload Relay Type B05 for direct mounting onto contactors type LS05, and LS07, also available with adaptor for separate mounting. Style and dimensions compatible with

DIN rail mounting uses an adaptor plate.

The lower coil, and auxiliary switch connection of the contactor is brought to a more accessible terminal.

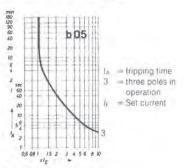
Ambient temperature compensation.

Single phase sensitivity is achieved by a differential tripping action.

Convertable Hand or Automatic reset feature. (Reset button: blue).

Separate red \*Stop\* button.

One N.C. auxiliary trip switch built in, with an additional \*Snap\* 1 N.O. auxiliary trip switch available if required.



Type B05 Overload Relay
Tripping Characteristic<sub>(Example)</sub>
Curves show trip characteristic from cold
condition. From warm condition, the tripping
time can be reduced to approx. 25%.

\* See page 73 for Dimensions.

(Average values for all current range)



## MINI CONTACTOR/STARTERS TYPE LS05 - TYPE B05

(20 Amps General Purpose)

#### MINI CONTACTOR



#### Type LS05 Ratings Maximum HP Ratings

3 HP
3 HP
5 HP
5 HP
1/2 HP
1.5 HP
UCTIVE
20 Amp
Amp Genera
pose.

MINI STARTER	Single Phase
	Three Phase

MINI REVERSING CONTACTOR Three Phase

MINI REVERSING STARTER Single Phase

Three Phase

Four Poles

	COIL VOLTA	
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
-NSW	24VDC Addition
-OSW	48VDC for DC
-PSW	120VDC Coil, \$10
-RSW	220VDC
-PSW	120VDC Coil



TYPE SH05 MINI RELAYS A.C. OPERATED 10 pole maximum with auxiliary

With Pressure Wire Screws Terminals

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

With Flat Plug (Spade) Connectors

-7-46			66	
ENCLOSED  OPEN NEMA 1 NEMA 4X▶			Auxiliary	
NEMA 1	NEMA 4X ►	Contact		
General Purpose	<b>Outdoor Dust Tight</b>	NO	NC	
LS05.10-★1	LS05.10-*4X	1	0	
LS05.01-★1 \$109 List	LS05.01-★4X \$132 List	0	1	
		1	0	
n Pressure Plate Termin	al Spade Terminal			
SXLS05-★1-★★ \$161 List	SXLS05-*4X-** \$184 List	1	0	
XLS05-*1-** \$161 List	XLS05-★4X-★★ \$184 List	1	0	
RLS05.10-*1	RLS05.10-*4X	1	0	
RLS05.01-★1		0	1	
\$185 List	\$238 List			
SRXLS05.11-*1-** \$243 List	SRXLS05.11-★4X-★★ \$296 List	1	1	
RXLS05.11-*1-**	RXLS05.11-*4X-**	1	1	
	\$296 List			
	NEMA 1 General Purpose LS05.10-*1 LS05.01-*1 \$109 List  In Pressure Plate Termin SXLS05-*1-** \$161 List XLS05-*1-** \$161 List RLS05.10-*1 RLS05.01-*1 \$185 List SRXLS05:11-*1-** \$243 List	NEMA 1         NEMA 4X ▶           General Purpose         Outdoor Dust Tight           LS05.10-★1         LS05.10-★4X           LS05.01-★1         LS05.01-★4X           \$109 List         \$132 List    Pressure Plate Terminal  SXLS05-★1-★★ \$161 List  XLS05-★4X-★★ \$161 List  XLS05-★4X-★★ \$161 List  RLS05.10-★1 RLS05.10-★4X RLS05.01-★4X RLS05.01-★4X S185 List  SRXLS05.11-★1 \$238 List  SRXLS05.11-★4X-★★ \$296 List	NEMA 1         NEMA 4X ▶         Con           General Purpose         Outdoor Dust Tight         NO           LS05.10-★1         LS05.10-★4X         1           LS05.01-★1         S05.01-★4X         0           \$109 List         \$132 List         1           In Pressure Plate Terminal         SALS05-★1-★★         SXLS05-★4X-★★         1           SXLS05-★1-★★         \$184 List         1           XLS05-★1-★★         \$184 List         1           RLS05.10-★1         RLS05.10-★4X         1           RLS05.01-★1         RLS05.01-★4X         0           \$185 List         \$238 List         0           SRXLS05.11-★1-★+         \$296 List         1	

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".

LS05-4.00- \*1

TYPE B05 TYPE HS AUXILIARY **OVERLOAD RELAY Side Mount** Front Mount

.LS05-4.00-\*0







ts	List
LS05-VB05	\$6
The state of the s	
	The company to the Co.

LS05-4.00-\*4X \$132 List

2000	Open	Clos		List
Side Mount	1	0	HS05.10	\$12
	0	1	HS05.01	\$12
TWO THE PARTY OF T	2	0	HS05.20	\$13
	1	1	HS05.11	\$13
Type B05 Overload has 1N.C. pilot circuit contact included.lf a N.O.	0	2	HS05.02	\$13
additional contact is needed, P/N HB05-143 includes a N.O. Alarm	0	1	HS05.01-001	\$13
Contact. See Below,	1	2	HS05.12	\$16
Front Mount	0	4	HS05.04	\$24
**OVERLOAD	1	3	HS05.13	\$24

	2	2	HS05.22	<b>DZ4</b>
	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

Diagram with time delay module type EV 05

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

90-240 VAC LS05-EV05-240 \$66

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

LS05-COIL-\* Discount Schedule ST

LS05-EB05

#### \*\*OVERLOAD Complete

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)



## **MINI-CONTACTORS** TYPE LS07





#### POSITIVE GUIDED TYPE SH04 RELAYS AND TYPE LS07 CONTACTORS

Certiifed as Positive Guided **AEG Relays and Contactors** 

1. Independent Test Lab Certified per IEC 947-5-1 2. 100% Quality Tested per IEC 947-5-1

	H.P. F	RATING							N. 17.7	- 0 mi				
1 Phase		3 Phase 208V 230V			460V	AMPS (OPEN) Resistive	Cat. No.	OPEN LIST	TYPE M1 NEMA1 LIST		TYPE 4X LIST		Auxiliary Contacts NO NC	
	PERATED ressure W				S07								1	Ī
1 1	2 2	3 3			3	16A 16A	LS07.10- LS07.01- LS07.22 LS07.40	-*0 \$36 -*0 36 -*0 36	- <b>★</b> 1 - <b>★</b> 1		-*4X \$1: -*4X 1:		2	1
1	2 2 2	3 3	3 3		3	16A 16A	LS07F.10- LS07F.01-	-★0 \$36 -★0 36			.10 india		Cat	
CONTACT		POI N.O.			LIARIES N.C.				To not be		VOLTA	GE S	SUFF	IX
LS07.10 LS07.01 LS07.22 LS07.40		3 3 2 4	2	1	1	SPADE CONNECTOR (Single or Double Spade) Check with factory for cost.			AC★ -A -C -D -E	60HZ 120V 208/23	110\ 0V 220\ 380\	/ -MS / -NS / -OS	SW SW	12VD0 24VD0 48VD0
DC OPERATED MINI CONTACTOR TYPE LS07 3 Pole Non-Reversing With Pressure Wire Screw Terminals								-G	24\		/ -RS	SW 2	LIST Coil	
1 2 3 3 3 1 2 3 3 3			3	16A 16A	10A LSU7.10*U \$46			SW Single Winding DC Power Plan						
With FI	at Plug (S	pade) Coi	nectors											
1	2	3		3	3	16A 16A	LS07F.10- LS07F.01-	-*0 \$46 -*0 46						

<sup>▶</sup> TYPE 4X ENCLOSED STARTERS. Type XLS starters are UL/CSA Listed starters enclosed in type 4X U.L. Listed enclosures. Type 4X enclosures are designed for outdoor/hose down/ dust tight applications and are non-metal corrosion resistant.

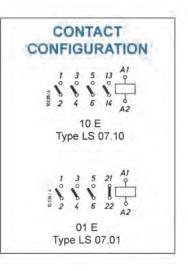
#### DESCRIPTION

Minicontactor Type LS07, designed for motor control, and distinct small size. As such, they are recommended for metal and woodworking for space saving in industrial control, electronic control and disribution systems.

The Type LS07 Minicontactor has been proven dependable on both three phase and single

phase systems when controlling motor loads. LS07 is particularly recommended machines, for textile and construction machinery and other commercial and industrial applications. Other loads for minicontactors are resistive, such as heating and lighting circuits, or inductive loads repre-

sented by solenoid valves and clutch couplings.



For TYPE LS05 - MINI Contactor, 20 Amp 600V, see LS05 Miniature Contactor System.