
ELECTRICAL ACCESSORIES

SECTION

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ALLIED REFRIGERATION INC. EST. 1934
SERVING ALL OF CALIFORNIA AND NEVADA
www.alliedrefrigeration.com

CONTACTORS

ARROW HART CONTACTORS

2, 3 and 4 Pole, 25 – 120 amp



60032



60530



60181

Replacement Coils Available: • 24v - 92619 • 120v - 92620 • 230v - 92621 • 480v - 92623*

PART#	FLA	RES. AMPS	COIL VOLTS
1 POLE			
60025	30	40	24
2 POLE			
60015	25	35	24
60030	30	40	24
60031	30	40	120
60032	30	40	208-240
60045	40	50	24
60046	40	50	120
60047	40	50	208-240
3 POLE			
60215	50	60	24
60216	50	60	110-120
60217	50	60	208-240
60225	60	70	24
60226	60	70	110-120
60227	60	70	208-240
60235	75	85	24
60236	75	85	110-120
60237	75	85	208-240
60246	90	100	110-120
60247	90	100	208-240
60256	120	130	110-120
60257	120	130	208-240
60515	30	40	24
60516	30	40	110-120
60517	30	40	208-240
60530	40	50	24
60531	40	50	110-120
60532	40	50	208-240
4 POLE			
60181	40	50	110-120
60182	40	50	208-240

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ELECTRICAL ACCESSORIES

FURNAS CONTACTORS

3 and 4 pole, 25 – 120 amp, Class 42



61416



61446



61436



61451

PART#	FLA	RES. AMPS	COIL VOLTS
3 POLE			
42AF35AJ	25	35	24
42AF35AF	25	35	120
42AF35AG	25	35	240
42AF35AL	25	35	277
42AF35AH	25	35	480
42BF35AJ	30	40	24
42BF35AF	30	40	120
42BF35AG	30	40	240
42BF35AL	30	40	277
42BF35AH	30	40	480
42CF35AJ	40	50	24
42CF35AF	40	50	120
42CF35AG	40	50	240
42CF35AL	40	50	277
42CF35AH	40	50	480
42DF35AJ	50	60	24
42DF35AF	50	60	120
42DF35AG	50	60	240
42DF35AL	50	60	277
42DF35AH	50	60	480
42EF35AJ	60	70	24
42EF35AF	60	70	120
42EF35AG	60	70	240
42EF35AL	60	70	277
42EF35AH	60	70	480
42FE35AJ106	75	93	24
42FE35AF106	75	93	120
42FE35AG106	75	93	240
42GE35AJ106	90	120	24
42GE35AF106	90	120	120
42GE35AG106	90	120	240
42HF35AJ	120	150	24
42HF35AF	120	150	120
42HF35AG	120	150	240
4 POLE			
42CF25AF	40	50	120
42CF25AG	40	50	240

CONTACTORS

FURNAS Parts and Accessories



61612



61615



61623

Snap-On Side Mounted Auxiliary Interlocks – Class 42 Contactors

PART#	INTERLOCK CONTACTS	RES. AMPS
49ACRO	1 NO	25 - 60
49ACR6	1 NO – 1 NC	25 - 60
49D36098001	SPDT	25 - 60
49D36098003	DPDT	25 - 60
49CE42SPDT	SPDT	75 - 90
49D22125001	1 NO	75 - 90
49D22125002	1 NC	75 - 90

Coils – Class 42 Contactors

PART#	VOLTS 60HZ	VOLTS 50HZ	RES. AMPS
75D70233J	24	24	25 - 60
75D72033F	110-120	110	25 - 60
75D70233G	208-240	190-220	25 - 60
75D70233H	440-480	380-440	25 - 60

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ELECTRICAL ACCESSORIES

SERIES 120 Run Capacitors



- MARS offers the widest selection of ratings in the industry
- Non-PCB capacitors. Physical interrupter makes our capacitors safe
- Perfect for general replacements—smallest dimensions available
- UL and CSA listings available

370 Volt - Oval

PART#	MICRO-FARAD
12002	2
12003	3
12004	4
12005	5
12006	6
12007	7.5
12008	10
12009	12.5
12010	15
12012	17.5
12014	20
12015	25
12017	30
12018	35
12021	40
12023	45
12025	50
12024	55
12087	60
12089	70
12090	80

370 Volt - Round

PART#	MICRO-FARAD
12095	5
12097	7.5
12098	10
12099	12.5
12210	15
12212	17.5
12214	20
12215	25
12217	30
12218	35
12221	40
12223	45
12225	50
12226	55
12227	60
12229	70
12199	80

440 Volt - Oval

PART#	MICRO-FARAD
12026	2
12027	3
12028	4
12029	5
12030	6
12031	7.5
12032	10
12033	12.5
12034	15
12036	17.5
12037	20
12040	25
12041	30
12043	35
12045	40
12048	45
12049	50
12050	55
12051	60
12130	70
12140	80

440 Volt - Round

PART#	MICRO-FARAD
12105	5
12107	7.5
12232	10
12233	12.5
12234	15
12236	17.5
12237	20
12240	25
12241	30
12243	35
12245	40
12248	45
12251	50
12252	55
12254	60
12258	70
12259	80

DUAL RUN CAPACITORS

SERIES 120 Run Capacitors - Dual



- MARS offers the widest selections of ratings in the industry
- Non-PCB capacitors. Physical interrupter makes our capacitors safe
- Perfect for general replacements—smallest dimensions available
- UL and CSA listings available

Dual Section 370 Volt Round

PART#	MICRO-FARAD
12260	20/5
12242	25/3
12175	25/4
12261	25/5
12262	25/7.5
12244	30/3
12263	30/4
12264	30/5
12082	35/3
12266	35/5
12074	40/3
12267	40/4
12178	40/5
12268	40/7.5
12073	45/3
12269	45/5
12075	50/3
12191	50/5
12192	50/7.5
12193	55/5
12194	55/7.5
12076	60/3
12195	60/5
12196	60/7.5
12197	80/5
12198	80/7.5
12201	80/10
12202	80/12.5

Dual Section 370 Volt Oval

PART#	MICRO-FARAD
12141	15/3
12056	15/4
12057	15/5
12058	15/10
12059	17.5/4
12060	17.5/5
12062	20/4
12063	20/5
12164	20/15
12142	25/3
12065	25/4
12066	25/5
12143	25/7.5

Dual Section 370 Volt Oval Cont...

PART#	MICRO-FARAD
12167	25/10
12144	30/3
12145	30/4
12069	30/5
12146	30/7.5
12147	30/10
12148	35/3
12071	35/4
12072	35/5
12149	35/7.5
12150	35/10
12151	40/3
12171	40/5
12152	40/7.5
12173	45/3
12174	45/5
12153	45/7.5
12154	55/5
12155	55/7.5
12156	60/7.5
12157	60/10

Dual Section 440 Volt Round

PART#	MICRO-FARAD
12278	25/5
12279	25/7.5
12281	30/5
12282	30/7.5
12077	35/3
12283	35/5
12284	35/7.5
12078	40/3
12285	40/4
12286	40/5
12287	40/7.5
12079	45/3
12288	45/5
12289	45/7.5
12290	50/5
12291	50/7.5
12292	55/5
12253	50/12.5
12293	55/7.5
12294	60/5
12295	60/7.5
12296	60/10
12255	70/5

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ELECTRICAL ACCESSORIES

Dual Section 440 Volt Oval

PART#	MICRO-FARAD
12270	15/4
12180	20/5
12083	20/15
12184	25/5
12187	30/5
12085	35/3
12185	35/5
12188	35/7.5
12272	35/10
12080	40/3
12086	40/5
12189	40/7.5
12273	40/10
12190	45/5
12274	45/7.5
12275	55/5
12276	55/10
12297	80/5
12298	80/7.5

SERIES 110 Motor Start Capacitors



- The largest assortment of replacements in the industry!
- Smallest dimensions for general replacements
- Hermetically sealed black Bakelite case permanently protects the capacitor from oil, dirt, grease or moisture
- New and improved terminal construction capable of withstanding increased heat. This terminal will generate less heat when applied under severe hot humid environment.

110/125 Dual Voltage AC

PART#	MICRO-FARAD
11002	21-25
11003	25-30
11004	30-36
11005	36-43
11006	43-56
11007	56-72
11008	72-88
11009	88-108
11010	108-130
11011	124-149 use 11112
11012	130-156 use 11112
11112	124-156
11013	145-175
11014	161-193
11015	189-227
11016	200-240
11017	216-259

110/125 Dual Voltage AC Cont...

PART#	MICRO-FARAD
11018	233-292
11019	270-324
11020	300-360
11021	324-388
11022	340-408
11023	378-440
11024	400-480
11025	460-552
11026	540-648
11027	590-708
11028	708-850
11029	829-995
11030	1000-1200

165 Volts AC

PART#	MICRO-FARAD
11031	124-149
11032	145-175
11033	161-193
11034	189-227
11035	233-292
11036	270-324
11037	400-480

220/250 Dual Voltage AC

PART#	MICRO-FARAD
11038	21-25
11039	25-30
11040	30-36
11041	36-43
11042	43-56
11043	56-72
11044	72-88
11045	88-108
11046	108-130
11048	130-156 use 11148
11148	124-156
11049	145-175
11050	161-193
11051	189-227
11052	216-259
11053	233-292
11054	270-324

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ELECTRICAL ACCESSORIES

CAPACITORS / ACCESSORIES

330 Volts AC Start Capacitors Cont...

PART#	MICRO-FARAD
11055	21-25
11056	25-30
11057	30-36
11058	36-43
11059	43-56
11060	56-72
11061	72-88
11062	88-108
11063	108-130
11064	130-156
11165	124-156
11066	145-175
11067	161-193
11068	189-227
11069	216-259
11070	270-324

Turbo 200



The world's first multiple tapped, fluid-filled, metal can, motor-run capacitor, which eliminates the need to inventory more than 200 individual single or dual value capacitors with a voltage rating up to 440 VAC.

PART#	RANGE	SIZE IN.	VOLTAGE
Turbo-200	2.5mfd to 67.5mfd	2 1/2 x 4 1/2	370 or 440

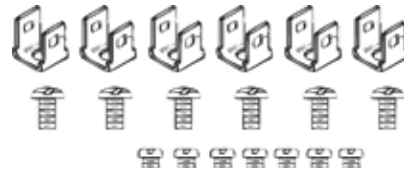
Resistor for Start Capacitors



PART#	DESCRIPTION
93007	2 watt (15,000 ohm) Resistors

SERIES 930 Component Accessories for Relays And Capacitors

QC-6 Kit



PART#	DESCRIPTION
93001	For conversion of screw-type connections on relays

Life-Line Capacitor Kit



The Life-Line Capacitor Kit is the all in one replacement kit for your single and dual run capacitor needs. In addition to many single capacitor ratings, this kit has been designed to cover 48 of the most common dual ratings in both 370VAC and 440VAC applications.

Kit Includes:

- 6 Best in Class Motor Run Capacitors
- 2 Life-Line "Spider" Devices
- 1 Capacitor Mounting Hardware Kit
- 1 Device Mounting Hardware Kit
- 1 Robust Carrying Case

Features and Benefits

- Eliminates trips to get the correct capacitors
- Lowest Total Cost Replacement solution
- Solves Truck Inventory Hassles by:
 - Taking up Less Space
 - Providing Organization
 - Being Easy to Replace

- Replace 48 Different Ratings (over 85% of models)
- UL Listed Life-Line "Spider" Device
- Customizable Kit

PART#
LCKG-001

CAPACITOR ACCESSORIES / RELAYS & OVERLOADS

Snap-On Mounting Brackets for Motor Start Capacitors



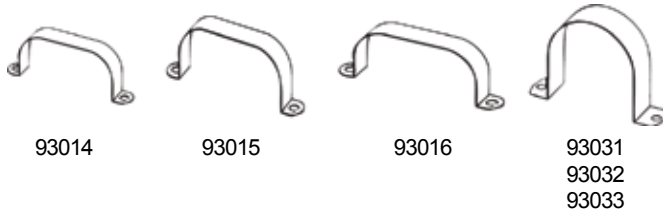
PART#	SIZE IN.
93026	2.75
93027	3.38
93028	4.38

Protector (Boots) for Motor Run Capacitors



PART#	DESCRIPTION
93011	1 Hole Boot
93012	2 Hole Boot
93013	3 Hole Boot for Dual

Wrap-Around Brackets for Motor Run Capacitors



PART#	DESCRIPTION
93014	1.94 x 2.78 for base A Oval
93015	1.97 x 2.94 for base C Oval
93016	2.25 x 3.66 for base D Oval
93031	For 1.63 in and 1.75 in diam
93032	For 2.0 in diam
93033	For 2.50 in diam

Bakelite End Caps for Motor Start Capacitors

For mounting ON MOTOR. Leads on bottom, through mounting bracket.



PART#	SIZE IN.
93018	1.44
93019	1.81
93020	2.06
93021	2.56

Bakelite End Caps for Motor Start Capacitors

For mounting OFF MOTOR.

Leads on top side.



PART#	SIZE IN.
93022	1.44
93023	1.81
93024	2.06
93025	2.56

CURRENT RELAYS



• Replace plug-on, bracket-type, split-phase, and capacitor-start current relays

PART#	AMPS		REC. HP @ 115V
	MAX PICK-UP	MIN. DROP-OUT	
27001	3.8	3.2	1/12
27002	5.2	4.4	1/8
27003	6.8	5.8	1/8, 1/6, 1/5
27004	8.3	7.1	1/6, 1/5, 1/4
27005	10.5	8.7	1/5, 1/4
27006	11.8	9.8	1/5, 1/4, 1/3
27007	13.8	11.5	1/4, 1/3
27008	15.1	12.6	1/4, 1/3, 1/2
27009	16.8	14.0	1/3, 1/2
27010	22.5	18.0	1/3, 1/2
27011	25.4	20.3	1/3, 1/2, 3/4
27012	31.0	25.0	1/2, 3/4

OVERLOADS



PART#	APPLICATION, HP	
	115V	230V
27001	1/6, 1/5, 1/4	1/3, 1/2
27002	1/6, 1/5, 1/4	1/2
27003	1/5, 1/4	1/2
27004	1/5, 1/4, 1/3	1/2
27005	1/5, 1/4, 1/3	1/2
27006	1/4, 1/3	1
27007	1/4, 1/3, 1/2	1
27008	1/3, 1/2	N/A
27009	1/2	N/A
27010	1/6, 1/5, 1/4	1/3, 1/2
27011	25.4	20.3
27012	31.0	25.0

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ELECTRICAL ACCESSORIES

RELAYS

IDEC RH Series Compact Power Relays



SPDT & DPDT, 10A contacts Compact power type relays



The RH series are miniature power relays with a large capacity. The RH relays feature 10A contact capacity as large as the RR series but in a miniature package. The compact size saves space. **4PDT models also available.**



PART#	SWITCHING	COIL VOLTAGE CODE
RH1B-UL	SPDT	AC24V, AC120V
RH2B-UL	DPDT	AC24V, AC110-120V, AC220-240V
RH3B-UL	3PDT	AC24V, 120V, AC220V, AC240V

IDEC Relay Sockets



SPDT & DPDT, Sockets (for Blade Terminal Models)



DIN Rail mount socket comes with two horseshoe clips. Do not use unless you plan to insert pullover wire spring.



PART#	MOUNTING	SWITCHING
SH1B-05	Standard DIN Rail Mount	SPDT
SH2B-05	Standard DIN Rail Mount	DPDT

PILOT SERIES RELAYS

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ELECTRICAL ACCESSORIES



- One (1) SPDT Continuous Duty Coil
- Operating Temperature: -30 to 140° F
- LED On = Activated
- Housing Rating: Plenum, NEMA 1
- 10 Amp POWER Control Relay



PART#	AC/DC	COIL VOLTAGE	SWITCHING
RIBU1C	10-30	120	SPDT
RIBU2C	10-30	120	SPDT
RIB2401D	24	120	DPDT

POWER SERIES RELAYS



- One (1) SPDT Continuous Duty Coil
- Operating Temperature: -30 to 140° F
- LED On = Activated
- Housing Rating: Plenum, NEMA 1
- 20 Amp POWER Control Relay



PART#	AC/DC	COIL VOLTAGE	SWITCHING
RIB2401B	24	120	SPDT
RIB2402B	24	208-277	SPDT

RELAY & OVERLOAD



- Replaces relay and overload
- For 1/12 through 2/3 HP, 115-230V

PART#	HP RATING	VOLTAGE
RO81	1/12-1/5	115V

CURRENT RELAY



- One size for all compressor form 1/12 through 1/2 HP
- Replaces all current type relays.
- Can be used with or without start capacitor

PART#	HP RATING	VOLTAGE	MOUNTING
ICG1	1/12-1/2	115V	Quik Connect
PO115	1/12-1/2	115V	Push - On

SWITCHING RELAY



- General purpose switching relay • Resistive @ 277V: 15 amps
- Contact Rating @ 125V: 12 FLA, 60 LRA
- Contact Rating @ 250V: 6 FLA, 35 LRA

PART#	COIL VOLTAGE	SWITCHING
90-340	24V	DPDT
90-341	120V	DPDT
90-342	208/240V	DPDT

SWITCHING RELAY



- General purpose switching relay
- Contact Rating @ 125V: 12 amps continuous
- Contact Rating @ 250V: 8 amps continuous
- Resistive @ 277V: 18 amps continuous
- * Heavy Duty Relay Rating @ 125V: 14 amps continuous

PART#	COIL VOLTAGE	SWITCHING
90-290Q	24V	SPNO
90-293Q	24V	SPDT
90-294Q	120V	SPDT
90-295Q	208/240V	SPDT
90-370*	24V	SPDT
90-380*	24V	SPNO/SPNC

ENCLOSED SWITCHING RELAYS



- Plug-in or Bracket Mount • See-Through Protective Cover
- Switching: 3PDT • Rating: 11 Amps
- HP Rating: 120V 1/3 HP, 240V 1/2 HP
- Socket Base: Can be Surface or DIN Rail Mounte

PART#	DESCRIPTION
43066	24V Relay
43067	120V Relay
43068	240V Relay
93058	Socket Base

POTENTIAL RELAYS



- Universal mounting - complete with screw & quick connect terminals.

PART#	CONTINUOUS COIL VOLT	PICK-UP		DROP-OUT MAX
		MIN	MAX	
19163	170	140	153	55
19164	395	245	275	120
19165	336	171	184	90
19166	395	208	239	120
19167	420	300	328	125
19168	495	323	352	135
19169	336	180	195	105
19170	253	285	305	77
19171	420	212	232	121

ADJUSTABLE POTENTIAL RELAYS

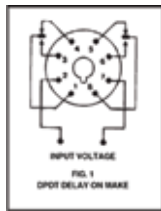


- Replaces virtually all potential relays
- Replaces 5 terminal and 3 terminal potential relays
- Recycles instantly
- Screw or Push -on Terminals

PART#
APR5

TIME DELAY RELAYS

Switch Setting Time Delay Relays



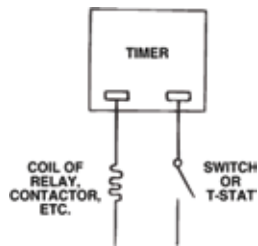
MARS 32395 is an adjustable, multi-voltage bypass timer that allows the temporary bypass of a control or device during start-up. At the end of the delay period the control is returned to the circuit.

PART#	TYPE DELAY	RANGE	ADJUSTMENT	INPUT VOLTAGE	HZ	MAX AMPS.	SWITCH TYPE
RH1B-UL	on make	1...1023 sec.	slidswitch	120 VAC	50/60	10 at 240V	DPDT
RH2B-UL	on make	1...1023 sec.	slidswitch	230 VAC	50/60	10 at 240V	DPDT

Solid State Timers Delay on Make



32391



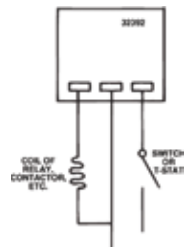
32396

FEATURES:

- Easy two-wire installation
- Proven reliability, all solid state
- .25 in. quick connect terminals
- Mounts in any position
- Compact size
- High accuracy
- Totally enclosed and encapsulated for proper heat dissipation
- 040 amps min. latch current

PART#	TYPE DELAY	RANGE	ADJUSTMENT	INPUT VOLTAGE	HZ	MAX AMPS.	VOLTAGE DROP
32391	on make	6 sec...8 min.	dial	19...240 VAC	50/60	1	2.5 at 1 amp.
32396	on make	1 sec...1023 sec.	slide switch	80...240VAC	50/60	1	2.5 at 1 amp.

Solid State Timers Delay on Break

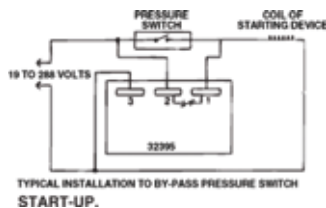


FEATURES:

- 1 to 3 second random re-start
- Models for two-wire or three-wire connection
- 32387 for use with anticipator thermostats
- Dial adjustable
- Compact size
- Mounts in any position
- .25 in. quick connect terminals
- Proven reliability
- MARS delay-on-break timers are not load sensitive

PART#	TYPE DELAY	RANGE	ADJUSTMENT	INPUT VOLTAGE	HZ	MAX AMPS.	VOLTAGE DROP
32392	on break	6 sec...5 min.	dial	19...240 VAC	50/60	1	2.5 at 1 amp.

Bypass Timer



FEATURES:

- Digital C/MOS circuitry
- Adjustable 1 to 1023 seconds
- For loads up to 10 amp
- Fits standard octal (8-pin) plug (MARS no. 93057)
- LED indicator 32350 on

PART#	TYPE DELAY	RANGE	ADJUSTMENT	INPUT VOLTAGE	HZ	MAX AMPS.	VOLTAGE DROP
32395	by-pass	6 sec...5 min.	dial	19...240 VAC	50/60	1	2.5 at 1 amp.

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ELECTRICAL ACCESSORIES

TIME DELAY RELAYS / PRESSURE CONTROLS

TIME DELAYS DELAY ON MAKE



PART#	VOLTAGE	TIME DELAY
ICM102	18-240 VAC	1.5-600 sec. adj.

2-WIRE HOOKUP DELAY ON BREAK



- Compressor lockout/anti-short cycle timer
- Helps to protect compressors from damage caused by rapid short cycling
- Simple, 2-wire hookup
- Adjustable timing
- Universal voltage

PART#	VOLTAGE	TIME DELAY
ICM203	18-240 VAC	1.8-600 sec. adj.

FAN CONTROL CENTER



PART#	VOLTAGE	TIME DELAY
ICM271	18-30 VAC	ON: 75 sec. OFF: 105 sec.
ICM275	18-30 VAC	ON: 60 sec. fixed OFF: 60-240 sec. adj.

ULTRA LOW COST HEAT PUMP DEFROST TIMER



- Ultra low cost
- Simple time and temperature control
- Must have external relays for fan reversing valve and auxiliary heat
- High installed base
- Defrost Time: Fixed 10 minutes + 5%
- Interval Time Between Defrosts: Pin-selectable 30/60/90 min
- Power on Reset Time: 500ms
- Test Time: Short across test terminals reduces test time 256x

PART#	VOLTAGE
ICM301	18-30 VAC

SINGLE-PHASE HEAD PRESSURE CONTROL (120-480 VAC)



- Integral heat pump bypass circuitry allows electronic bypass of speed control
- Eliminates overshoots common to on/off and pressure switch controls
- Helps prevent evaporator freeze-ups, low pressure cut-outs and liquid-slugged compressors in low ambient conditions
- Features: hard start, low temperature bypass, isolated 24 VAC supply
- Control: 18-30 VAC
- 50/60 Hz 1.8 VA maximum
- Line input: 120-480 VAC
- Maximum 10 amps
- Minimum 100 mA

PART#
ICM325H

SINGLE-PHASE HEAD PRESSURE CONTROL (120, 208/240 VAC)



- Recommended for use on Sanyo
- Built in transformer eliminates cost, reduces installation time and simplifies wiring
- Helps prevent evaporator freeze-ups, low pressure cut-outs and liquid-slugged compressors in low ambient conditions
- Features: hard start, low temperature cutoff, high temperature bypass
- Ideal for line voltage air conditioning and refrigeration
- Input: 120 or 208/240 VAC
- Frequency: 50/60 Hz
- Output: Maximum: 10 amps Minimum: 100 mA

PART#
ICM326H

SENSOR PROBES



- For use with ICM325K head pressure controls
- Choose from 3 temperature ranges:
 - ICM375: 50-80°C)
 - ICM376: 70-100°C)
 - ICM377: 95-120°C)

PART#	LENGTH
ICM377	79 in.

10

ELECTRICAL ACCESSORIES

PHASE MONITORS / HARD STARTS

Three-Phase Line Voltage Monitor PROGRAMMABLE



- Fully programmable with LCD diagnostic display
- 25-fault memory storage, non-volatile
- Identifies front and back side faults
- Protects against: voltage unbalance, high/low voltage, phase loss, phase reversal, faulty power, incorrect sequencing and rapid short cycling
- Universal voltage operation: 190-630 VAC
- Voltage: 190-630 VAC
- Frequency: 50/60 Hz
- Voltage Unbalance: Adjustable: 2-25%
- Control: 18-240 VAC
- Delay on break timer 1-5 minutes
- Output: Relay, SPDT
- N.O.: 10 amps N.C.: 6 amps

PART#

ICM450

SINGLE-PHASE MOTOR PROTECTION



- Low cost single phase motor protection
- Built in anti-short cycle protection
- Detects high/low voltage conditions
- Helps prevent rapid short cycling
- LED indicators:
 - Green for normal conditions
 - Red for fault
- Heavy duty SPDT, isolated relay output
- Output: Relay, SPDT, N.C./N.O.: 5 amps

PART#	VOLTAGE	TIME DELAY RANGE
ICM491	95-270 VAC	Adjustable 6-600 seconds

Rapid Start® - Current Sensing



- Operates from 95-288 VAC
- Maximum input voltage: 502VAC
- Patented current sensing circuitry
- Self-adjusting to voltage fluctuation
- Easy to install, 2 wires, clip, or screw mounted
- For scroll or reciprocating compressors
- Solid-state circuitry
- Boost starting torque
- Disengages upon start
- Intrinsically safe, fuse protected (fuse not user replaceable)
- UL recognized
- Ideally suited for 2 thru 5 HP
- Capacitor: 145-175 Mfd., 330V
- Operating temperature range -40°C

PART#	OPERATING VOLTAGE
ICM805	95-288 VAC

3 N 1 RELAY, OVERLOAD AND START CAPACITOR



- Replaces relay, overload and provides a boost for hard start and unbalanced systems.
- Prevents low voltage starting problems.

PART#	MOUNTING	HP RATING	VOLTAGE
RCO410	QUIK CONNECT	1/4 - 1/3	115V
RCO810	QUIK CONNECT	1/12 - 1/8	115V
RCO210	QUIK CONNECT	1/2	115V

SPP SERIES



- Gives additional starting torque to all single-phase 120/288VAC units from 1/2 to 10 HP
- Combination relay and start capacitor
- Easy 2 -wire installation

PART#	OP. VOLTAGE	REC. RANGE	TORQUE INCREASE
SPP5	90 - 277V	1/2-10	300%
SPP6	90 - 277V	1/2-10	500%

SPPE SERIES



- Gives additional starting torque to all single-phase 120/288VAC units from 1/2 to 10 HP
- Electronic Potential Relay Technology (EPR)
- Backup electronic timing circuit to protect the compressor
- Voltage sensing
- Instant re-start
- Easy 2-wire installa

PART#	OP. VOLTAGE	REC. RANGE	CAP. SIZE (uF)
SPP8E	90 - 277V	1 & UP	189-227
SPP10E	90 - 277V	3 & UP	270-324 / 330V

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ELECTRICAL ACCESSORIES

TRANSFORMERS

Multi-Mount End Bell Type



PART#	VA RATING	PRIMARY VOLTAGE	PRIMARY CONNECTIONS	SECONDARY VOLTAGE	SECONDARY CONNECTIONS
50306	48	277	Color coded leads	24	Color coded leads
50333	48	120 / 208 / 240	Color coded leads	24 / 12 / 2.5	Color coded leads

TRANSFORMERS

Foot-Mount End Bell Type with Manual Reset



PART#	VA RATING	HZ	PRIMARY VOLTAGE	PRIMARY CONNECTIONS	SECONDARY VOLTAGE	SECONDARY CONNECTIONS
50321	75	50/60	120 / 208 / 240 / 480	Color coded leads	24	Color coded leads
50375	75	50/60	120 / 208 / 240 / 575	Color coded leads	24	Color coded leads

TRANSFORMERS

Foot-Mount End Bell Type



PART#	VA RATING	PRIMARY VOLTAGE	PRIMARY CONNECTIONS	SECONDARY VOLTAGE	SECONDARY CONNECTIONS
50320	75	120 / 208 / 240 / 480	Color coded leads	24	Color coded leads
50340	100	120 / 208 / 240 / 480	Color coded leads	24	Color coded leads

TRANSFORMERS

Foot-Mount End Bell Type



PART#	VA RATING	PRIMARY VOLTAGE	PRIMARY CONNECTIONS	SECONDARY VOLTAGE	SECONDARY CONNECTIONS
50354	40	120/208/240	Color coded leads	24	Color coded leads

FAN CENTER



- Choice of SPST, SPDT, SPNO / SPNC or DPDT relay switching options
- UL 1585 40 VA transformer
- Color coded leads
- Low voltage terminal board
- Mounts directly to 4" electrical box
- Made in USA

PART#	PRIMARY TRANSFORMER		SECONDARY TRANSFORMER		SWITCHING
	VOLT	CONN	VOLT	CONN	
50320	120/208/240	Pre-stripped Color Coded	24V	5 screw terminals	DPDT
50340	120	Pre-stripped Color Coded	24V	5 screw terminals	SPDT

FUSE DISCONNECTS / FUSES

Disconnects - Pullout



83316, 17 83315

MARS offers both fusible and non-fusible single phase air conditioner disconnects. These units provide a disconnecting means which should be located within sight from and readily accessible from the air conditioning or refrigerating equipment. UL listed. MARS #83315 is also CUL listed.

PART#	DESCRIPTION
83315	60 amp non-fused, single phase
83316	30 amp fused, single phase
83317	60 amp fused, single phase

Disconnects - Pullout

I-T-E Cartridge Fuse Type - UL listed



1 Phase/2 wire, 3 Phase/3 wire, solid neutral

PART#	DESCRIPTION	TYPE
83330	30a-240V 2 pole, exterior	3R
83331	60a-240V 2 pole, exterior	3R
83336	30a-240V 3 pole, exterior	3R
83337	60a-240V 3 pole, exterior	3R

Disconnects - Pullout

I-T-E Heavy Duty 3PH 600V - Type 3R - Outdoor



PART#	DESCRIPTION
83359	30a-600V 3 pole outdoor fused
83360	60a-600V 3 pole outdoor fused
83361	100a-600V 3 pole outdoor fused

GLASS FUSES



- Fast-acting. Glass tube
- Dimension: 1/4 x 1-1/4"
- For instrument and electronic circuits

PART#	AMPS	PKG. QTY
AGC1	1	5
AGC3	3	5
AGC5	5	5
AGC7	7	5

FUSES

ECNR 250V



- Dual-Element Time Delay Fuses
- Standard time-delay of 10 seconds at 5 times the fuse rating.
- Bussman FRN-R, Gould TR, Little Fuse: FLNR

PART#	AMPS	VOLTS	DIAMETER	LENGTH
ECNR15	15	250V	.56"	2"
ECNR20	20	250V	.56"	2"
ECNR25	25	250V	.56"	2"
ECNR30	30	250V	.56"	2"
ECNR35	35	250V	.81"	3"
ECNR40	40	250V	.81"	3"
ECNR45	45	250V	.81"	3"
ECNR50	50	250V	.81"	3"
ECNR60	60	250V	.81"	3"

FUSES

ECNR 600V



- Dual-Element Time Delay Fuses
- Standard time-delay of 10 seconds at 5 times the fuse rating
- Bussman FRN-R, Gould TRS, Little Fuse: FLSR

PART#	AMPS	VOLTS	DIAMETER	LENGTH
ECSR10	10	600V	.81"	5"
ECSR15	15	600V	.81"	5"
ECSR20	20	600V	.81"	5"
ECSR30	30	600V	.81"	5"

SEC TIME-LAG CLASS G FUSES

SEC 480V



- Standard time-delay of 12 seconds minimum
- Bussman SC, Gould AG, Little Fuse: SLC

PART#	AMPS	VOLTS	DIAMETER	LENGTH
SEC10	10	600V	.41"	1.31"
SEC15	15	600V	.41"	1.31"
SEC20	20	600V	.41"	1.41"

ATC - BLADE TYPE



- Fast-acting. Glass tube
- Dimension: 1/4 x 1-1/4"
- For instrument and electronic circuits
- 250 Vac maximum

PART#	AMPS	PKG. QTY
SEC10	3	5
SEC15	5	5

10

ELECTRICAL ACCESSORIES

PACKAGED STRANDED WIRE RECEPTACLES



PART#	GAUGE	COLOR
3140	14	Black
3146	14	Blue
3142	14	Red
3149	14	White
3120	12	Black
3125	12	Blue
3122	12	Red
3129	12	White
3100	10	Black
3106	10	Blue
3102	10	Red
3109	10	White

SPOOLED STRANDED WIRE



PART#	GAUGE	COLOR	LENGTH
84292	16	Black	100 Ft.
84289	16	Red	100 Ft.
84304	16	Yellow	100 Ft.
84301	16	Blue	100 Ft.
84310	14	Black	100 Ft.
84313	14	White	100 Ft.
84307	14	Red	100 Ft.
84319	14	Blue	100 Ft.
84325	12	Black	100 Ft.
84328	12	White	100 Ft.
84322	12	Red	100 Ft.
84340	10	Black	100 Ft.
84337	10	Red	100 Ft.
84351	10	Yellow	100 Ft.
84349	10	Blue	100 Ft.
84343	10	White	100 Ft.

WHIPS



PART#	DESCRIPTION
84136	6' x 1/2" #10 ga. metallic whip UL
84138	6' x 3/4" #8 ga. metallic whip UL

Sealtite® Flexible Conduit



*METALLIC SHOWN

Sealtite® flexible conduit provides protection for wet or oily locations. UL listed conduit has a continuous copper ground built into the core. All UL listed sealtite is UV resistant.

PART#	DESCRIPTION
84102	1/2", metallic conduit, UL
84103	3/4", metallic conduit, UL
84118	1/2", non-metallic conduit, UL
84119	3/4", non-metallic conduit, UL

Liquid-Tight Flexible Metallic Fittings



PART#	DESCRIPTION
85001	1/2" straight metallic connector
85002	3/4" straight metallic connector
85004	3/8" 90° metallic connector
85005	1/2" 90° metallic connector
85006	3/4" 90° metallic connector

Liquid-Tight PVC Flexible Non-Metallic Fittings



PART#	DESCRIPTION
85016	1/2" straight non-metallic connector
85017	3/4" straight non-metallic connector
85020	1/2" 90° non-metallic connector
85021	3/4" 90° non-metallic connector

Liquid-Tight PVC Flexible Non-Metallic Fittings SELF-REGULATING HEATING CABLE



PART#	VOLTAGE	PKG. QTY
H611050	120V	50 Ft.
H621050	208-277P	50 Ft.

ACCESSORIES

PART#	VOLTAGE
H900	Power Connection Kit
H908	Plug-in 120-V power connection w/ground-fault
H910	Splice and Tee Kit
H912	Gel-filled End Seal Kit

WIRING ACCESSORIES

VINYL GROMMETS



PART#	DESCRIPTION
4453H	Assorted Pack

SOLDERLESS TERMINALS BULLET PLUGS & RECEPTACLES



PART#	DESCRIPTION
2125H	22 - 18
2121H	16 - 14

DEAD END CONNECTORS



PART#	DESCRIPTION
1217H	22-14

COMPRESSOR TERMINAL - FEMALE FLAG



PART#	FIG.	WIRE RANGE	TAB SIZE
1119H	A	12-8	.250
1119C	A	12-8	.250
1116H	B	16-14	.250
1116C	B	16-14	.250
1117H	C	12-10	.250
1117C	C	12-10	.250

COMPRESSOR LEAD KIT



- Includes 3 12" 10 Gauge compressor leads

PART#
2520F

TAB ADAPTERS

Double Male Tabs



PART#	FIG.	DESCRIPTION	TAB SIZE
1211H	A	Tandem 2 Male, 1 Female	.250
1207H	B	Stacked, 2 Male, 1 Female	.250
1209	C	Straight #10 stud	.250
2109H	D	Stacked 1 Male, 1 Female	.250

TAP CONNECTORS



PART#	DESCRIPTION	COLOR	WIRE RANGE
1220H	Tap Splice	Blue	Blue

BUTT CONNECTORS



PART#	WIRE RANGE
2060H	22-18
2061H	16-14
2062H	12-10

COMPRESSOR TERMINAL REPAIR KIT QWIKLUG



- Replaces Damaged or Corroded Spade Terminals
- Fits All Standard Compressor Terminals
- Tightens From the Front with a Screwdriver
- Includes 3 Connectors with 24" Lead Wires and Wire Nuts

PART#	GAUGE	LENGTH
QT2810	10 AWG	24"

10

ELECTRICAL ACCESSORIES

INSULATED RINGS



PART#	STUD SIZE	WIRE RANGE
2006H	#6	16-14
2007H	#8	22-18
2008H	#10	16-14
2008C	#10	16-14
2014H	#10	12-10
2014C	#10	12-10
2015H	1/4"	12-10

SLIP-ON CONNECTORS

MALE & FEMALE COMBO PACK



PART#	WIRE RANGE	TAB SIZE
2121H	16-14	.250

FEMALE SLIP-ONS - INSULATED



PART#	FIG.	WIRE RANGE	TAB SIZE
2101H	A	22-18	.187
2102H	A	22-18	.250
2105H	A	16-14	.250
2104H	A	16-14	.187
2117H	B	16-14	.250
2107H	A	12-10	.250

MALE SLIP-ONS - INSULATED



The insulation on fully insulated slip-ons is vinyl or nylon.

PART#	WIRE RANGE	TAB SIZE
2106C	16-14	.250
2117C	16-14	.250

FEMALE SLIP-ONS - NON-INSULATED



PART#	FIG.	WIRE RANGE	TAB SIZE
1105C	D	16-14	.250
1105H	A	16-14	.250
1104H	A	16-14	.250
1107H	B	12-10	.250
1048P	C	12-10	.250

SPADE CONNECTORS - INSULATED



PART#	WIRE RANGE	STUD
2050H	22-18	#8
2027H	16-14	#6
2057H	12-10	#8
2058H	12-10	#10
2054H	16-14	#8
2055H	16-14	#10

HVAC/R Installer's Kit



PART#	DESCRIPTION
6967F	1,470 Pc. Packaged in a sturdy carry case 1485 Pcs

CRIMPER AND STRIPPER



- Crimps solderless terminals
- Strips wire 20 to 10 AWG
- Cuts copper wire

PART#
5002

WIRING ACCESSORIES

WIRING DEVICES RECEPTACLES



PART#	RATING	DESCRIPTION	COLOR
ED1876	20A-250V	Single	Brown
ED1876-I	20A-250V	Single	Ivory
ED270	15A-125V	Duplex	Brown
ED270-I	15A-125V	Duplex	Ivory
ED877	20A-125V	Duplex	Brown

WIRING DEVICES



PART#	SWITCH	RECEPTACLE	COLOR
ED5225	15A-120V	15A-125V	Brown

TOGGLE SWITCHES



PART#	RATING	DESCRIPTION	COLOR
ED1240-2	15A-120/277V AC	Single Pole	Brown
ED1238	20A-120/277V AC	Single Pole	Brown
ED1301	15A-120V AC	Single Pole	Brown
ED1301-I	15A-120V AC	Single Pole	Ivory
ED1262-2	15A-120/277V AC	Double Pole	Brown
ED1232	30A-120/277V AC	Double Pole	Brown

BAT HANDLE TOGGLE SWITCHES



- Specifications: 10A/277V - 20A/125V
- Single Pole: 3/4HP 125-250V
- Double Pole: 1-1/2HP 125-250V

PART#	SWITCH	DESCRIPTION
ED447	ON-OFF	SPST
ED453	ON-ON	DPDT
ED454	ON-ON	SPDT
ED455	ON-OFF	DPST
ED468	ON-OFF-ON	SPDT
ED494	ON-OFF-ON	DPDT

GROUNDING HARDWARE



PART#	DESCRIPTION	PKG. QTY.
PI314	Grounding Screw, Size 10-32 x 3/8"	10
PI336	Box Grounding Clip for #10, #12, and #14 wire	11
PI337-1	Grounding Pigtail 12 Gauge 6-1/2" Long	5
PI337-4	Grounding Pigtail 12 Gauge 8" Long	5
8289	Screw-on Ground Connector #14 - #10 AWG	10

ALLIGATOR CLIPS



- Includes: Vinyl red and black insulators

PART#	DESCRIPTION
5033	Steel Alligator Clips, for use with test probes (.075" -.080")
5034	Small Copper Alligator Clips; for 20 gauge wire or smaller
5035	Copper Alligator Clips, crimper slotted screw connection
5036	Steel Test Clips; 20A, crimper slotted screw connection

TAPES

ELECTRICAL TAPE



Available Colors: Red, White, Yellow, Brown, Blue, Green, Orange & Gray

PART#	DESCRIPTION
34X60B	3/4" x 60 ft.

TERMINAL BLOCKS



- Rated: 20A-250V
- Maximum Wire Size: 22-14
- Screw Size: 6-32

PART#	No. OF POSITIONS	WIDTH	LENGTH
6183	6	.88"	2.91"
6185	10	.88"	4.41"
6187	14	.88"	5.91"

10

ELECTRICAL ACCESSORIES

ELECTRICAL STAPLES



PART#	DESCRIPTION	SIZE	PKG. QTY.
PI330	For 2 conductor Romex; 12/2 - 14/2	3/8" x 1/2"	50
PI332	For 3 conductor Romex; 12/3 - 14/3	3/8" x 3/4"	50
PI309	For Romex and NM cable (14/2-10/3).	1" x 1/2"	154
ED273CX	Thermostat Insulated Staples	5/8" x 1/4"	100

BOXES AND COVERS

STEEL BOXES



PART#	TYPE	KNOCKOUT	LENGTH	WIDTH	DEPTH
PI330	Utility	1/2	4"	2-1/8"	1-7/8"
PI332	Utility	1/2	4"	2-1/8"	2-1/8"
PI309	1900	3/4 & 1/2	4"	4"	1-1/2"
ED273CX	1900	3/4 & 1/2	4"	4"	2-1/8"

EXTENSION RINGS



PART#	KNOCKOUT	LENGTH	WIDTH	DEPTH
PI390	1/2"	2-1/8"	4"	1-7/8"
PI391	1/2" & 3/4"	4"	4"	1-1/2"

WEATHERPROOF BOXES AND COVERS

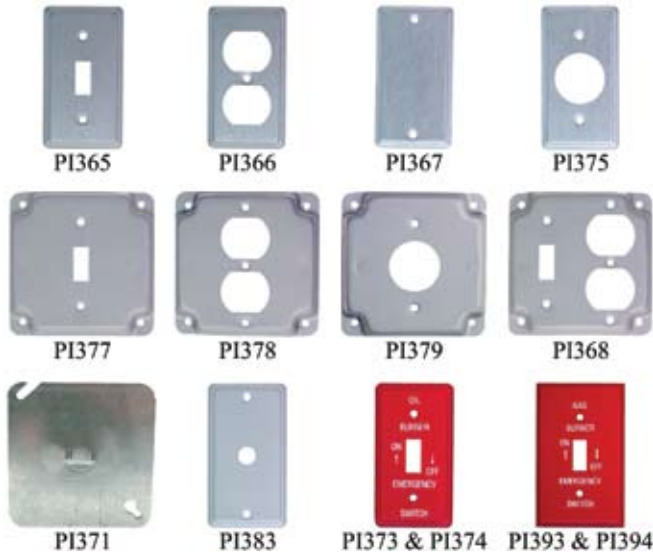


• Covers come with gaskets

PART#	DESCRIPTION
PI385	Weatherproof Box 4-1/2"H x 2-3/4"W x 2"D
PI382	Weatherproof Blank Cover
PI386	Weatherproof Lever Switch Cover
PI389	Weatherproof Duplex Receptacle Cover

WIRING ACCESSORIES

COVERS AND PLATES



PART#	TYPE	DESCRIPTION
PI365	Utility	Toggle Switch
PI366	Utility	Duplex Receptacle
PI367	Utility	Blank
PI375	Utility	Standard Single Receptacle
PI377	1900	Single Toggle
PI378	1900	Single Duplex Receptacle
PI379	1900	One Standard Single Receptacle
PI368	1900	Toggle Switch & Duplex Receptacle
PI371	1900	Flat, Blank, Galvanized steel
PI383	Utility	Appliance Switch, .4687" dia. hole
PI373	Utility	Emergency Oil Burner, Utility Cover
PI374	Utility	Emergency Gas Burner, Utility Cover
PI393	Utility	Emergency Oil Burner, Wall Plate
PI394	Utility	Emergency Gas Burner, Wall Plate

ELECTRICAL BOX HARDWARE



PART#	DESCRIPTION	PKG. QTY.
PI308	Reducing Washer 1/2" to 15/32"	10
PI310	Reducing Washer 3/4" to 1/2"	28
PI313	Utility Cover Screws	20
PI316	1/2" Knockouts Plugs	10
PI317	3/4" Knockouts Plugs	10
PI331	Anti-Short Bushings, for 14/2, 14/3 and 12/2 BX	35
ED28	Plastic Bushings w/nut for 1/2" knockout	5

10 ELECTRICAL ACCESSORIES