A/C Hard Starts

Choosing the correct hard start for the application combines a technical need with a professional preference. Select from the broadest offering of hard starts from the Pioneer of Hard Start technology.

Three (3) styles to choose from:

- **SPP Series** PTC/Capacitor combination
- **SPPE Elite Series** Electronic Potential Relay (EPR)/Capacitor combination
- **SK3W Series** 3-wire Potential Relay/Capacitor combination

Applications

- Use on any single phase air conditioner or refrigeration unit
- Low voltage situations
- Hard starting compressors

SPP Series PTC/ Capacitor Combination

Features/Benefits

- Positive Temperature Coefficient Technology (PTC)
- Field proven reliability
- Easy 2 –wire installation
- Most economic

PART NO.	OPERATING VOLTAGE (VAC)	RECOMMENDED RANGE (hp)	INCREASE IN TORQUE (%)
SPP*	90 – 277	½ to 10	250%
SPP5	90 – 277	½ to 10	300%
SPP6	90 – 277	½ to 10	500%
SPP7S	90 – 277	½ to 10	600%

* This model does not include a capacitor

SPPE 'E Class' Series EPR/Capacitor Combination

Features/Benefits

- Electronic Potential Relay Technology (EPR)
- Backup electronic timing circuit to protect the compressor
- Voltage sensing
- Instant re-start
- Easy 2-wire installation
- Can be used on PSC and CSIR type compressors

MADE IN THE USA

PART NO.	OPERATING VOLTAGE (VAC)	RECOMMENDED RANGE (hp)	CAPACITOR Size (uF)
SPP4E	90 – 130	1/8 – 1	88–106
SPP5E	90 – 277	1/3 – 2	43–52
SPP6E	90 – 277	1/2 – 3	88–106
SPP7E	90 – 277	1 – 4	130–156
SPP8E	90 – 277	1 and up	189–227
SPP9E	90 – 277	1 and up	233–280
SPP10E	90 – 277	3 and up	270–324 / 330V

SK3W Series 3-wire Potential Relay/Capacitor Combination

Features/Benefits

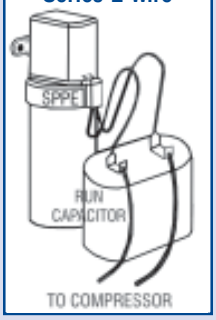
- OEM-Style 3-wire Installation
- Instant re-start
- Easy installation with "fast clamp-on" connection
- Models for standard and scroll compressors
- 330 VAC Start Capacity Voltage

PART NO.	H.P. RATINGS	COMPRESSOR	DROP-OUT VOLTAGE (VAC)	PICK-UP VOLTAGE (VAC)	MAXIMUM COIL VOLTAGE	START CAP (mF)
SK3W2	1 thru. 2 HP	Standard	60-135	204-233	500 VAC	88 - 108
SK3W3	2½ thru. 3 ½ HP	Standard	60-121	171-184	420 VAC	189 - 227
SK3W5	4 thru. 5 HP	Standard	60-121	171-184	420 VAC	243 - 292
SK3W4S	3 thru. 4 HP	Scroll	60-135	204-233	500 VAC	189 - 227
SK3W6S	4½ thru. 6 HP	Scroll	60-121	171-184	420 VAC	270 - 324

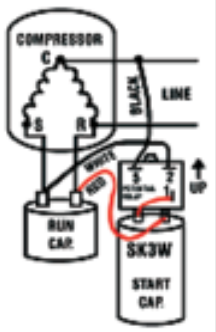
Hard Start Comparison	SPPE Series	SPP Series	SK3W Series
Start Sensing Technology	Voltage	N/A	Voltage
Uses Electronic Potential Relay (EPR)	Yes	No	Yes
Instant Re-Start	Yes	No	Yes
Senses Motor Start	Yes	No	Yes
Two wire, non-polarized	Yes	Yes	No
OEM Style, 3-wire	No	No	Yes
Replaces 3-wire capacitor kit	Yes	Yes	Yes
UL approved	Yes	Yes	Pending
PTCR Device	No	Yes	No
Backup Timing Safety Circuit	Yes	No	No
Potentially damaging to motor windings	No	No	No
Requires non-replaceable fuse protection	No	No	No

Application Note: 2-wire vs. 3-wire Installation

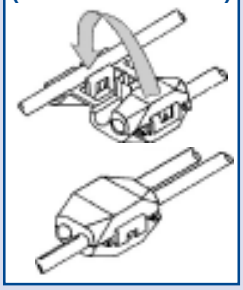
SPP & SPPE Series 2-wire



SK3W Series 3-wire



"Fast Clamp-On" Connection (used with SK3W Series)



Universal Potential Relays

Note: See Technical Area for Application Note on Relays

Replacing all potential relays, these WIRE TO WIRE Universal Potential Relays offer the ultimate in convenience. One potential relay to fit any application. Choose to "drop in" the SUPR Universal Potential Relay or "dial in" the exact pick-up voltage for the APR5 Adjustable Potential Relay. State of the Art electronic circuitry provides Wire to Wire replacement of any potential relay with added motor protection.

Applications

- Replaces all OEM potential relays
- Used on any single phase motor or air conditioning and refrigeration compressor up to 5 hp.

Features/Benefits

- Reduces inventory
- Wire to Wire Replacement for virtually ALL potential relays.
- Recycles instantly
- Replaces both 3 and 5 terminal potential relays.
- Accomodates screw-on or push-on connections.
- Dimensions identical to industry standard potential relays.
- Easy replacement mounting with universal mounting bracket.
- Start winding protection if motor does not start.
- Prevents start capacitor venting when motor doesn't start.

SUPR Universal Potential Relay

- Time Function Relay
- Start Time: 1.0 - 0.5 seconds

MADE IN THE USA

APR5 Adjustable Potential Relay

- Adjustable, Voltage Sensitive Relay
- Set pick-up voltage
- Safety time out 1.0 – 1.5 seconds

MADE IN THE USA

Common Specifications

Operating Voltage	110 – 270 VAC, Single Phase
Amperage	30 AMP
Motor Power Rating	up to 5 hp
Operating Position	Non-positional mounting.
Universal Mounting Bracket	Allows for easy installation. Unused portions of the bracket simply snap off with pliers.
Terminals	Screw or push-on. Adapters to convert screw-on to push-on are provided.
Dimensions	1.75W x 2.25L x 1.50H

90X Series Potential Relays

- Meets all requirements of OEM relays
- Universal break-off bracket

Features/Benefits

- 50/60 cycle
- Contact rating 35 amp @ 277 VAC
- Non-positional
- Instructions and wiring diagram included in each relay

MODEL NO.	CONTINUOUS COIL VOLTAGE	PICK-UP MIN.	PICK-UP MAX.	DROP MAX.	OUT REPLACES GE 3ARR3 RELAY GROUPS*
9063	170	139	153	55	2J; 2K; 2L; 2M; 5N; 7J; 7K; 7L; 7M; 7N; 8L; 8M; 8N
9064	395	260	275	120	3A; 3B; 3AV; 3AU; 4A; 4B; 6A; 6B; 6AV; 10A; 10B; 10AU; 10AV; 14A; 14B; 16A
9065	332	168	182	90	3P; 3R; 3AP; 5P; 5R; 5S; 5T; 13P; 19N; 22S
9066	395	215	225	120	3U; 3V; 3AT; 6U; 6V; 6W; 16U
9067	420	295	315	125	3C; 3D; 3AA; 4C; 4D; 4BK; 6C; 6D; 6AA; 10C; 10D; 26A; 26B; 26C; 26D
9068	502	325	345	135	3E; 3F; 3AB; 3AC; 4E; 4F; 4G; 6E; 6F; 6G; 10H; 10AB; 10AC; 26E; 26F; 26G; 26H; 27E; 27F; 27G
9069	336	180	195	105	3S; 3T; 10S; 10T; 10AS; 13S; 13T; 20S; 25S; 25T
9070	253	285	305	77	5B; 5C; 5D; 5AA; 8B; 8C; 8D; 27A; 27B; 27C
9071	420	212	232	121	6TV; 6TW; 10V; 16TV; 20V

*Determine group from GE part number.

903X Series General Purpose Switching Relays

Double pole – double throw (DPDT)

Applications

- HVAC/ R
- Appliance vending machines
- Fan controls
- Business machines

PART NO.	COIL VOLTAGE	TERMINAL 1-2-3	TERMINAL 4-5-6	CROSS REFERENCE ESSEX/RBM	CROSS REFERENCE HONEYWELL
90340	24	power	power	90-340	R8222D1014
90341	110/12	power	power	90-341	R4222D1013
90342	208/240	power	power	90-342	R4222N1021

CONTACT RATINGS	POWER 208/240V 120V	POWER 208/240V 277V	PILOT 208/240V 120V	PILOT 208/240V 277V
Full Load Amps	12	6	-	-
Resistive Amps*	15	15	3	3
Locked Rotor Amps	60	35	-	-
Horsepower	3/4	3/4	1/10	1/10

*0.75 power factor

Relays

902XX & 903XX Series General Purpose Fan Relays

Engineering Data

- **CONTACTS:** SPST-NO, SPST-NC, SPDT, 1 NO/1 NC, Material/ Power - Silver Alloy, Material 1/2 Pilot - Fine Silver
- **POWER RATINGS (All Forms):** 125 VAC, 18A Resistive, 12 FLA, 60 LRA, 240/277 VAC, 18A Resistive, 8 FLA, 48 LRA
- **SPECIAL POWER RATINGS (Form 1 & 2):** 125 VAC, 14 FLA, 84 LRA, 277 VAC, 25A Resistive
- **PILOT RATINGS (All Forms):** 3A, 277 VAC Gen. Purpose, 250 VA @ 250 VAC, 277 VA @ 277 VAC, 125 VA @ 125 VAC
- **COILS :** Voltage Ratings - 24, 120, 208/240, 77 VAC, 12, 24 VAC Frequency - 50/60 Hz Pick-up Voltage - AC 85% of nominal, DC 75% of nominal, Power Ratings -AC DC, Inrush 5 VA 3VA, Sealed 3 VA 3 VA

PART NO.	DESCRIPTION	AMPS	COIL VOLTAGE
90290	SPST	4	24V
90291	SPST	4	120V
90292	SPST	4	240V
90293	SPDT	1	24V
90294	SPDT	1	120V
90295	SPDT	1	240V
90370	SPDT	12	24V
90372	SPDT	12	120V
90374	SPDT	12	240V
90380	IN/NC	13	24V
90382	IN/NC	13	120V
90384	IN/NC	13	240V

Short Cycle Protector, Time Delay Relay and Contactor Combination

- Choose Delay on Break or Delay on Make model
- Ideal for split systems not supplied with contactor or time delay relay
- Prevents short cycling
- Contactor takes compressor load off the thermostat circuit

Features/Benefits

- Adjustable Delay
- Relay coil same voltage as load
- ¼" male quick connect terminals
- Encapsulated circuitry
- Input Voltage: 208 - 230 VAC
- Maximum Amps: 30 A

PART NO.	DELAY TYPE	DELAY RANGE
TDP269	Delay on Make (DOM)	6 sec. to 300 sec.
TDC22	Delay on Break (DOB)	1 sec to 350 sec.

Compressor Protection Package Combination

Combines Hard Start Kit with maximum compressor protection.

Features/Benefits

- Can be installed in pilot circuits for 24 to 288 VAC
- Adjustable time delay from 6 seconds to 5 minutes
- Operates with or without cooling thermostat anticipator
- Only two terminal connection on Time Delay
- Can be mounted as an assembly or snapped apart for separate mounting
- Two models available to suit specific requirements

Applications

- Residential and commercial PSC A/C units and heat pumps
- For all PSC A/C units from 1 H.P. to 10 H.P
- Can be used on 115 thru 288 VAC units
- For severe low voltage or hard starting compressors

PART NO.	INCREASED TORQUE	TIME DELAY RANGE
SPP5TD	270 ounce inches (300%)	6 sec. to 5 minutes
SPP6TD	390 ounce inches (500%)	6 sec. to 5 minutes

Capacitors

Facts About Capacitors

- Capacitors are rated by microfarads (uF) and voltage. The rated capacitor should not be changed since the motor operates at maximum efficiency when using a specified capacitor size. However a plus or minus 10 % rule of thumb applies to the microfarad rating when changing out a capacitor. If necessary, the replacement capacitor voltage rating can be higher than specified, but not lower without effecting the capacitor life.
- Always replace the run capacitor when installing a new motor. If a defective capacitor is in the circuit the motor will probably not run. If it does run, it will operate as if it is overloaded. The motor speed will be low; it will overheat and probably activate the motor overload protector causing short cycling.
- Capacitors can hold a charge for long periods of time. To prevent shock the capacitor should be discharged before it is removed. The proper procedure to do this is to use a 5000 to 20000 Ohm bleed resistor.
- To check capacitors, use a SUPCO Capacitor Tester p/n **MFD10**.

Motor Run Capacitors

Features:

- Non – PCB biodegradable synthetic oil
- Physical interrupter for safety
- Operating temperature –13°F to + 185°F (- 25°C to + 85°C)
- Microfarad uF tolerance +/- 5 %
- Drawn steel case construction
- Quad blade quick connect terminals
- Hermetically sealed

Applications:

- Air Conditioning Compressors
- Refrigeration Compressors
- Furnace Blower Motors
- Condenser Fan Motors

RUN CAPACITORS

PART NUMBER	VALUE (uF)	370 VAC	440 VAC	SINGLE	DUAL	OVAL	ROUND
CR2X370	2	X		X		X	
CR3X370	3	X		X		X	
CR4X370	4	X		X		X	
CR5X370	5	X		X		X	
CR6X370	6	X		X		X	
CR7.5X370	7.5	X		X		X	
CR10X370	10	X		X		X	
CR12.5X370	12.5	X		X		X	
CR15X370	15	X		X		X	
CR17.5X370	17.5	X		X		X	
CR20X370	20	X		X		X	
CR25X370	25	X		X		X	
CR30X370	30	X		X		X	
CR35X370	35	X		X		X	
CR40X370	40	X		X		X	
CR45X370	45	X		X		X	
CR50X370	50	X		X		X	
CR60X370	60	X		X		X	
CR70X370	70	X		X		X	
CD15+5X370	15+5	X			X	X	
CD15+10X370	15+10	X			X	X	
CD20+5X370	20+5	X			X	X	
CD20+5X370R	20+5	X			X		X
CD20+15X370	20+15	X			X	X	
CD25+3X370	25+3	X			X	X	
CD25+5X370	25+5	X			X	X	
CD25+10X370	25+10	X			X	X	
CD30+3X370	30+3	X			X	X	
CD30+5X370	30+5	X			X	X	
CD30+7.5X370	30+7.5	X			X	X	
CD35+5X370	35+5	X			X	X	
CD35+7.5X370	35+7.5	X			X	X	
CD40+5X370	40+5	X			X	X	
CD45+5X370	45+5	X			X	X	
CD55+7.5X370	55+7.5	X			X	X	
CD60+10X370	60+10	X			X	X	
CR15X370R	15	X		X			X
CR20X370R	20	X		X			X
CR25X370R	25	X		X			X
CR30X370R	30	X		X			X

PART NUMBER	VALUE (uF)	370 VAC	440 VAC	SINGLE	DUAL	OVAL	ROUND
CR35X370R	35	X		X			X
CR40X370R	40	X		X			X
CR45X370R	45	X		X			X
CR50X370R	50	X		X			X
CR55X370R	55	X		X			X
CR60X370R	60	X		X			X
CR70X370R	70	X		X			X
CR80X370R	80	X		X			X
CD20+5X370R	20+5	X			X		X
CD20+7.5X370R	20+7.5	X			X		X
CD25+3X370R	25+3	X			X		X
CD25+4X370R	25+4	X			X		X
CD25+5X370R	25+5	X			X		X
CD30+3X370R	30+3	X			X		X
CD30+5X370R	30+5	X			X		X
CD35+5X370R	35+5	X			X		X
CD40+5X370R	40+5	X			X		X
CD45+5X370R	45+5	X			X		X
CD80+5X370R	80+5	X			X		X
CR2X440	2		X	X		X	
CR3X440	3		X	X		X	
CR4X440	4		X	X		X	
CR5X440	5		X	X		X	
CR6X440	6		X	X		X	
CR7.5X440	7.5		X	X		X	
CR10X440	10		X	X		X	
CR12.5X440	12.5		X	X		X	
CR15X440	15		X	X		X	
CR17.5X440	17.5		X	X		X	
CR20X440	20		X	X		X	
CR25X440	25		X	X		X	
CR30X440	30		X	X		X	
CR35X440	35		X	X		X	
CR40X440	40		X	X		X	
CR45X440	45		X	X		X	
CR50X440	50		X	X		X	
CR55X440	55		X	X		X	
CR60X440	60		X	X		X	
CD25+5X440	25+5		X		X	X	
CD30+5X440	30+5		X		X	X	

PART NUMBER	VALUE (uF)	370 VAC	440 VAC	SINGLE	DUAL	OVAL	ROUND
CD35+5X440	35+5		X		X	X	
CD35+7.5X440	35+7.5		X		X	X	
CD40+5X440	40+5		X		X	X	
CD40+7.5X440	40+7.5		X		X	X	
CD45+5X440	45+5		X		X	X	
CD45+7.5X440	45+7.5		X		X	X	
CD55+10X440	55+10		X		X	X	
CR10X440R	10		X	X			X
CR15X440R	15		X	X			X
CR20X440R	20		X	X			X
CR25X440R	25		X	X			X
CR30X440R	30		X	X			X
CR35X440R	35		X	X			X
CR40X440R	40		X	X			X
CR45X440R	45		X	X			X
CR50X440R	50		X	X			X
CR55X440R	55		X	X			X
CR60X440R	60		X	X			X
CR70X440R	70		X	X			X
CR80X440R	80		X	X			X
CD20+5X440R	20+5		X		X		X
CD25+5X440R	25+5		X		X		X
CD25+7.5X440R	25+7.5		X		X		X
CD30+5X440R	30+5		X		X		X
CD30+7.5X440R	30+7.5		X		X		X
CD35+5X440R	35+5		X		X		X
CD35+7.5X440R	35+7.5		X		X		X
CD35+10X440R	35+10		X		X		X
CD40+5X440R	40+5		X		X		X
CD40+7.5X440R	40+7.5		X		X		X
CD40+10X440R	40+10		X		X		X
CD45+5X440R	45+5		X		X		X
CD45+7.5X440R	45+7.5		X		X		X
CD50+5X440R	50+5		X		X		X
CD50+7.5X440R	50+7.5		X		X		X
CD55+5X440R	55+5		X		X		X
CD55+7.5X440R	55+7.5		X		X		X
CD55+10X440R	55+10		X		X		X
CD60+5X440R	60+5		X		X		X
CD60+7.5X440R	60+7.5		X		X		X

Capacitors

Motor Start Capacitors

UL approved Start Capacitors available in 110 VAC, 165 VAC, 220 VAC and 330 VAC.

Features

- Dry, electrolytic, no polarized type for intermittent duty in AC motors and compressors.
- Used where starting torques must be higher in relation to running torques.
- Moisture and oil resistant molded phenolic resin or plastic material.
- Standard dual blade terminals.
- Industry standard case sizes.

110 VAC

PART NO,	VALUE (UF)	CASE SIZE
CS21-25X110	21-25	1
CS25-30X110	25-30	1
CS30-36X110	30-36	1
CS36-43X110	36-43	1
CS43-56X110	43-56	1
CS56-72X110	56-72	1
CS64-77X110	64-77	1
CS72-88X110	72-88	1
CS88-108X110	88-108	1
CS108-130X110	108-130	1
CS124-156X110	124-156	1
CS145-175X110	145-175	1
CS161-193X110	161-193	1
CS189-227X110	189-227	1
CS200-240X110	200-240	2
CS216-259X110	216-259	2
CS233-292X110	233-292	4
CS270-324X110	270-324	4
CS300-360X110	300-360	4
CS324-388X110	324-388	4
CS340-408X110	340-408	4
CS378-440X110	378-440	4
CS400-480X110	400-480	5
CS460-552X110	460-552	5
CS540-648X110	540-648	5
CS590-708X110	590-708	5
CS708-850X110	708-850	7
CS829-995X110	829-995	8
CS1000-1200X110	1000-1200	8

165 VAC

PART NO.	VALUE (UF)	CASE SIZE
CS124-156X165	124-156	4
CS145-175X165	145-175	4
CS161-193X165	161-193	4
CS233-292X165	233-292	5
CS270-324X165	270-324	5

330 VAC

PART NO.	VALUE (UF)	CASE SIZE
CS21-25X330	21-25	1
CS25-30X330	25-30	1
CS30-36X330	30-36	4
CS36-43X330	36-43	4
CS43-56X330	43-56	4
CS53-70X330	53-70	5
CS56-72X330	56-72	5
CS72-88X330	72-88	5
CS88-108X330	88-108	7
CS108-130X330	108-130	8
CS124-156X330	124-156	8
CS130-156X330	130-156	8
CS145-175X330	145-175	8
CS161-193X330	161-193	8
CS189-227X330	189-227	8
CS216-259X330	216-259	8
CS270-324X330	270-324	8
CS324-388X330	324-388	8

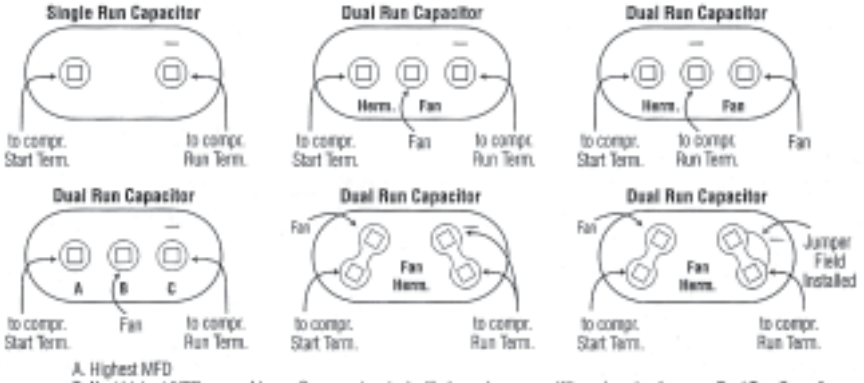
220 VAC

PART NO.	VALUE (UF)	CASE SIZE
CS21-25X220	21-25	1
CS25-30X220	25-30	1
CS30-36X220	30-36	1
CS36-43X220	36-43	1
CS43-56X220	43-56	2
CS56-72X220	56-72	2
CS64-77X220	64-77	4
CS72-88X220	72-88	4
CS88-108X220	88-108	4
CS108-130X220	108-130	4
CS124-156X220	124-156	5
CS145-175X220	145-175	7
CS161-193X220	161-193	7
CS189-227X220	189-227	7
CS216-259X220	216-259	8
CS233-292X220	233-292	8
CS270-324X220	270-324	8

Case Dimensions

CASE SIZE	DIAMETER	HEIGHT
1	1-716"	2-3/4"
2	1-7/16"	3-3/8"
4	1-13/16"	3-3/8"
5	1-13/16"	4-3/8"
6	2-1/16"	3-3/8"
7	2-1/16"	4-3/8"
8	2-9/16"	4-3/8"

Wiring Diagrams for Run Capacitors



A. Highest MFD
B. Next highest MFD
C. Always is common
D. Lowest MFD if there are three capacitors

Line or Common terminal will always be marked in some way, either with a Red Mark by the terminal or sometimes a small dot or dash indented in the metal by the terminal.

When changing from any Dual Run Capacitor, with three(3) terminals, to a Dual Run Capacitor with four(4) terminals,the two Line or Common terminals should be jumpered.

GE Definite Purpose Contactors

Features/Benefits

- Designed to control air conditioning, refrigeration and resistance heating loads.
- Ranges: 20 to 90 Full Load Amps (FLA)
- Poles: 1-1/2 to 3
- Coil Voltages: 24, 120, 208/240 & 480
- Universal mounting base allows easy replacement of other manufacturer's devices (refer to SUPCO Contactor cross-reference).
- Molded enclosed, replaceable coil structures.
- Optional field installed auxiliary contacts available.

CR453C Series

20-to 40 Full Load Amps/ 1.5 & 2 poles

Features

- The coil and each power pole are supplied with two ¼" quick connect terminals.
- Standard 20 – 30 FLA contactors feature hex screws with #2 Phillips / slotted heads.
- Standard 40 FLA contactors include box lugs.

PART NO.	POLES	FULL LOAD AMPS	RESISTIVE AMPS PER POLE	LRA SINGLE PHASE 50/60 Hz 240/ 277V	480V	600V	COIL VOLTAGE
CR453CB3HAA	1.5	25	35	150	125	100	24
CR453CB3AAA	1.5	25	35	150	125	100	120
CR453CB3BAA	1.5	25	35	150	125	100	208/240
CR453CC3HAA	1.5	30	40	180	150	120	24
CR453CC3AAA	1.5	30	40	180	150	120	120
CR453CC3BAA	1.5	30	40	180	150	120	208/240
CR453CA2HAA	2	20	30	120	100	80	24
CR453CA2AAA	2	20	30	120	100	80	120
CR453CA2BAA	2	20	30	120	100	80	208/240
CR453CB2HAA	2	25	35	150	125	100	24
CR453CB2AAA	2	25	35	150	125	100	120
CR453CB2BAA	2	25	35	150	125	100	208/240
CR453CC2HAA	2	30	40	180	150	120	24
CR453CC2AAA	2	30	40	180	150	120	120
CR453CC2BAA	2	30	40	180	150	120	208/240
CR453CE2HBB	2	40	50	240	200	160	24
CR453CE2ABB	2	40	50	240	200	160	120
CR453CE2BBB	2	40	50	240	200	160	208/240

CR453C Series Coil Selection.
Part No Digit 9 Denotes Coil Voltage

PART NO. DIGIT	H	A	B	F
COIL VOLTAGE 60 Hz	24	110-120	208-240	277
COIL VOLTAGE 50 Hz	24	110-120	208-240	***

CR453A Series

25 to 0 Full Load Amps/ 3 Pole

Features

- 3 pole contactors
- The coil and each power pole are supplied with two ¼" quick connect terminals.
- Standard 25 and 30 FLA contactors feature hex screws with #2 Phillips / slotted heads and short covers.
- Standard 40 FLA contactors include box lugs and long covers.

PART NO.	FULL RESISTIVE LOAD AMPS	AMPS PER	THREE PHASE 50/60Hz 240V HP/LRA	480V HP/LRA	600V HP/LRAv	SINGLE PHASE 50/60 Hz HP@ 20V	HP@ 24V	COIL VOLTAGE
CR453AB3HAA	25	35	7.5 / 150	10 / 125	10 / 100	2	3	24
CR453AB3AAA	25	35	7.5 / 150	10 / 125	10 / 100	2	3	120
CR453AB3CAA	25	35	7.5 / 150	10 / 125	10 / 100	2	3	480
CR453AB3BAA	25	35	7.5 / 150	10 / 125	10 / 100	2	3	208/240
CR453AC3HAA	30	40	10 / 180	15 / 150	15 / 120	2	5	24
CR453AC3AAA	30	40	10 / 180	15 / 150	15 / 120	2	5	120
CR453AC3CAA	30	40	10 / 180	15 / 150	15 / 120	2	5	480
CR453AC3BAA	30	40	10 / 180	15 / 150	15 / 120	2	5	208/240
CR453AD3HBB	40	50	10 / 240	20 / 200	20 / 160	3	7.5	24
CR453AD3ABB	40	50	10 / 240	20 / 200	20 / 160	3	7.5	120
CR453AD3CBB	40	50	10 / 240	20 / 200	20 / 160	3	7.5	480
CR453AD3BBB	40	50	10 / 240	20 / 200	20 / 160	3	7.5	208/240

*For other contactors, configurations and accessories, contact SUPCO.

CR453A Coil Selection.
Part Number Digit 9 Denotes Coil Voltage

PART NO. DIGIT	E	H	A	B	F	C	D
COIL VOLTAGE 60 Hz	12	24	110-120	208-240	277	460-480	575-600
COIL VOLTAGE 50 Hz	12	24	110-120	208-240	***	380-415	550-600

Contactors

CR353 Series

50 to 90 Full Load Amps / 3 Pole

Features

- The standard CR353 contactors in the 50–90 FLA ratings are supplied with box lug terminals.
- Power poles in the 50 – 90 FLA sizes are supplied with two ¼" quick connect terminals.
- Coils are provided with screw connections with a single ¼" quick connect terminal on the 50 and 60 FLA size and two ¼" quick connect terminals on the 75 and 90 FLA size.

CR353 (F&E) Series Coil Selection.
Part Number Digit 10 Denotes Coil Voltage

PART NO. DIGIT	H	A	B	F	C	D
COIL VOLTAGE 60 Hz	24	110-120	208-240	277	460-480	440
COIL VOLTAGE 50 Hz	24	110-120	208-240	***	575-600	550

PART NO.	FULL LOAD AMPS	RESISTIVE AMPS/ POLE	LRA THREE PHASE 50/60 Hz 240V	480V	600V	COIL VOLTAGE
CR353FE3BH1	50	62	300	250	200	24
CR353FE3BA1	50	62	300	250	200	120
CR353FE3BB1	50	62	300	250	200	208/240
CR353FF3BH1	60	75	360	300	240	24
CR353FF3BA1	60	75	360	300	240	120
CR353FF3BB1	60	75	360	300	240	208/240
CR353EG3BH1	75	90	450	375	300	24
CR353EG3BA1	75	90	450	375	300	120
CR353EG3BB1	75	90	450	375	300	208/240
CR353EH3BH1	90	90	540	450	360	24
CR353EH3BA1	90	90	540	450	360	120
CR353EH3BB1	90	90	540	450	360	208/240

Field Installed Auxiliary Contacts

PART NO.	USE w/SUPCO CONTACTORS SERIES	FULL LOAD AMPS	POLES	DESCRIPTION
CR453XC211	CR453A	25-40	2-3	250V Side Mounted SPDT
CR453XC222	CR453A	25-40	2-3	250V Side Mounted Two SPDT
CR453XC611	CR453A	25-40	2-3	600V Side Mounted 1 NO - 1 NC
CR453XM602	CR453A	25-40	2-3	600V Side Mounted 2 NO
CR353XAAA	CR353F	50-60	3	250V SPDT
CR353XAAB	CR353E	75-90	3	250V SPDT

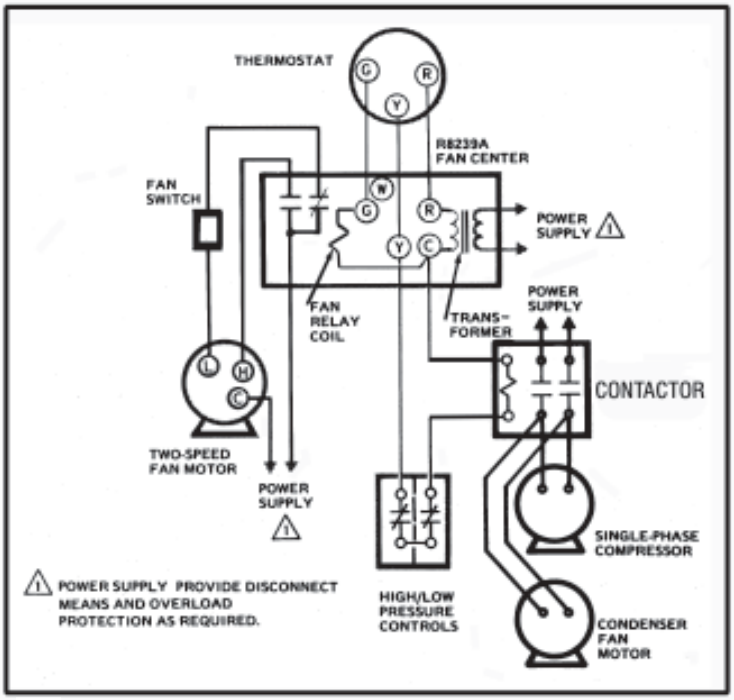
Application Note

The contactor is the primary controller in a cooling controls circuit. It is the switching device which activates the compressor motor to pump refrigerant through the system to provide cooling.

Contactors are used to break the power supply to the compressor. Either 1 or 2 poles are needed for single phase; 2 or 3 poles for 3 phase motors. Auxiliary contacts may be used for interlock switching, fan loads or crankcase heaters. If the contactor is selected with an adequate current rating, the condenser fan may also be wired in parallel with the compressor. Then the condenser fan is energized whenever the compressor is powered.

Checking Contactor Operation:

- Check contactor operation by switching the contactor from the system controls.
- Make sure that the pressure and overload controls can break the system circuit to prevent contactor operation, if necessary.
- Check electrical conductance of the contacts.
- Check the voltage source to the coil.



CONTACTOR SHOWN IN THE COOLING CONTROLS CIRCUIT.

Supco Brand Definite Purpose Contactors

1.5 POLE PART NO.	FLA	COIL VOLTAGE
DP25241	25	24
DP251201	25	120
DP252401	25	240
DP30241	30	24
DP301201	30	120
DP302401	30	240

2 POLE PART NO.	FLA	COIL VOLTAGE
DP20242	20	24
DP201202	20	120
DP202402	20	240
DP25242	25	24
DP251202	25	120
DP252402	25	240
DP30242	30	24
DP301202	30	120
DP302402	30	240
DP40242	40	24
DP401202	40	120
DP402402	40	240

Field Installed SPDT Auxiliary Contacts

PART NO.	USED WITH
AUX5060	50 & 60 Contactors
AUX7590	75 & 90 Conatctors

3 POLE PART NO.	FLA	COIL VOLTAGE
DP25243	25	24
DP251203	25	120
DP252403	25	240
DP30243	30	24
DP301203	30	120
DP302403	30	240
DP40243	40	24
DP401203	40	120
DP402403	40	240
DP50243	50	24
DP501203	50	120
DP502403	50	240
DP60243	60	24
DP601203	60	120
DP602403	60	240
DP75243	75	24
DP751203	75	120
DP752403	75	240
DP90243	90	24
DP901203	90	120
DP902403	90	240

Contactor Nomenclature

Example: DP30242
DP = Definite Purpose
30 = Full Load Amps
24 = Coil Voltage
2 = # Of Poles

Supco Brand Contactor Cross Reference

PART NO.	DIVERSITECH	FURNAS	GE	GLOBAL CUTLER HAMMER	HONEYWELL POWER PRO	MA LINE SQUARE D	MARS	PACKARD / FASCO
DP25241	***	45DG10AJD8A	CR353CB3AH1	4140	DP1025A5005	***	***	1S25A
DP251201	***	45DG10AFD8A	CR353CB3AA1	4141	DP1025B5046	***	***	1S25B
DP252401	***	45DG10AGA	CR353CB3AB1	4142	DP1025C5045	***	***	1S25C
DP30241	***	45EG10AJA	CR353CD3AH1	4143	DP1030A5013	***	13067/13101	1S30A
DP301201	***	45EG10AJA	CR353CD3AA1	4144	DP1030B5020	***	13068	1S30B
DP302401	***	45EG10AGA	CR353CD3AB1	4145	DP1030C5029	***	13069	1S30C
DP20242	***	45CG20AJ	CR353CA2AH1	4101	DP2020A5021	***	13071	2S20A
DP201202	***	45CG20AF	CR353CA2AA1	4102	DP2020B5038	***	13072	2S20B
DP202402	***	45CG20AG	CR353CA2AA1	4103	DP2020C5037	***	13073	2S20C
DP25242	DP25224	45DG20AJ	CR353CB2AH1	4104	***	***	13077	***
DP251202	DP252120	45DG20AF	CR353CB2AA1	4105	***	***	13078	***
DP252402	DP252240	45DG20AG	CR353CB2AB1	4106	***	***	13079	***
DP30242	DP30224	45EG20AJ	CR353AC2AH1	4107	DP2030A5004	8910DP32V14	14321/13104	C2S30A
DP301202	DP302120	45EG20AF	CR353AC2AA1	4108	DP2030B5003	***	14322	C2S30B
DP302402	DP302240	45EG20AG	CR353AC2AB1	4109	DP2030C5002	***	14323	C2S30C
DP40242	DP40224	45GG20AJ	CR353AD2BH1	4161	DP2040A5003	8910DP42V14	14421	C2S40A
DP401202	DP402120	45GG20AF	CR353AD2BA1	4162	DP2040B5002	***	14422	C2S40B
DP402402	DP402240	45GG20AG	CR353AD2BB1	4163	DP2040C5001	***	14423	C2S40C

Contactor Cross Reference Continued On Next Page

Contactors

Supco Brand Contactor Cross Reference

DP25243	***	42AF35AJ	CR353AB3AH1	4110	DP3025A5003	***	13001	3M25A
DP251203	***	42AF35AF	CR353AB3AA1	4111	DP3025B5002	***	13002	3M25B
DP30243	DP30324	42BF35AJ	CR353AC3AH1	4113	DP3030A5003	8910DPA33V14	14331/13007	C3M30A
DP301203	DP303120	42BF35AF	CR353AC3AA1	4114	DP3030B5002	8910DPA33V02	13008	C3M30B
DP40243	DP40324	42CF35AJ	CR353AD3BH1	4116	DP3040A5002	8910DPA43V14	14431/13013	C3M40A
DP401203	DP403120	42CF35AF	CR353AD3BA1	4117	DP3040B5001	8910DPA43V02	13014	C3M40B
DP50243	DP50324	42DF35AJ	CR353FE3BH1	4128	DP3050A5001	8910DPA53V14	13200	C3L50A
DP501203	DP503120	42DF35AF	CR353FE3BA1	4129	DP3050B5000	8910DPA53V02	13201	C3L50B
DP502403	DP503240	42DF35AG	CR353FE3BB1	4130	DP3050C5009	8910DPA53V09	13202	C3L50C
DP60243	DP60324	42EF35AJ	CR353FF3BH1	4131	DP3060A5000	8910DPA63V14	13220	C3L60A
DP601203	DP603120	42EF35AF	CR353FF3BA1	4132	DP3060B5009	8910DPA63V02	13221	C3L60B
DP602403	DP603240	42EF35AG	CR353FF3BB1	4133	DP3060C5008	8910DPA63V09	13222	C3L60C
DP75243	DP75324	42FE35AJ	CR353EG3BH1	4134	DP3075A5008	***	13240	C3L75A
DP751203	DP753120	42FE35AF	CR353EG3BA1	4135	DP3075B5007	***	13241	C3L75B
DP752403	DP753240	42FE35AG	CR353EG3BB1	4136	DP3075C5006	***	13242	C3L75C
DP90243	DP90324	42GE35AJ	CR353EH3BH1	4137	***	***	13260	C3L90A
DP901203	DP903120	42GE35AF	CR353EH3BA1	4138	***	***	13261	C3L90B
DP902403	DP903240	42GE35AG	CR353EH3BB1	4139	***	***	13262	C3L90C

"Partial Cross Reference", refer to product sheet for complete cross reference information

Surge Protection

Surge Arrestors

MADE IN THE USA

LIGHTNING is the most obvious source of a power surge, but not the only culprit. Utility Events, Cycling of Air Conditioners, Generators, and Motors can also produce damaging surges. Protect your equipment with SUPCO's Surge Arrestors. With a full product line, we can protect all of your equipment.

These devices do not protect electronic appliances such as TV's, computers, micowaves, etc. They only protect dedicated electromechanical devices such as air conditioners. If whole house protection is required use SUPCO p/n **DTK-WH5**. Which will protect AC power, coaxial and two telephone lines.

SCM1

Benefits

- Easy Installation at Disconnect or Panel
- Weatherproof Housing
- Indicator Light on some models for Surge Protection Present
- Promote Additional Profits
- Reduce Callbacks
- Keep Equipment Running

SCMPLUS

SCM1, SCM & SCMPLUS Surge Arrestors

Surge Protection for:

- Air Conditioners
- Air Handlers
- Motors
- Refrigeration Systems
- Heat Pumps
- Pumps
- Furnaces
- Electro-Mechanical Devices

SCMPLUG

Providing the same protection of the SCM in a convenient, single outlet plug. Plug the SCMPLUG into an outlet, then plug your sensitive equipment into the SCMPLUG for surge protection!

Refer to and abide by all Local and State Electrical Codes for proper installation of these devices.

Specifications

	SCM1	SCM	SCM PLUS
Service Voltage	120/240 Volt, Single Phase	120/240 Volt, Single Phase	120/240 Volt, Single Phase
Max. Surge Current	26,000 Amps	50,000 Amps	100,000 Amps
Max. Energy Dissipation	320 Joules	420 Joules	840 Joules
AC Protection Modes	L–L, L-G	L–L, L-G	L-L, L-G
Response Time	< 5ns Installed <1ns Component Level	< 5ns Installed <1ns Component Level	<5ns Installed <1ns Component Level
Operating Frequency	0 – 400 Hz.	0 – 400 Hz.	0 – 400 Hz.
Diagnostics	N/A	N/A	Indicator light – Surge Suppression Present
Class	Secondary Surge Arrestor, Cat C	Secondary Surge Arrestor, Cat C	Secondary Surge Arrestor, Cat C
Installation Point	Electrical Panel, Electrical Disconnect	Electrical Panel, Electrical Disconnect	Electrical Panel, Electrical Disconnect
Connection Method	Hardwired parallel	Hardwired parallel	Hardwired parallel
Agency Approvals	UL, cUL, ANSI/IEEE C62.11	UL, cUL, ANSI/IEEE C62.11	UL, cUL, ANSI/IEEE C62.11
Housing	High Impact Plastic	High Impact Plastic	High Impact Plastic
Housing Size	2 in. x 2 in.	4.35" x 3.55" x 1.60"	4.35" x 3.55" x 1.60"
Weight	1.0 lbs	.75 lbs	.75 lbs
Warranty	Limited Lifetime	Limited Lifetime	Limited Lifetime

SCMPLUS Operation:

The SCMPLUS uses an LED diagnostics connected at each phase wire to indicate power, ground and surge protection activity.

LED Sequence:

1 LED = 120 VAC L-G operation
2 LED = 240 VAC L-L operation

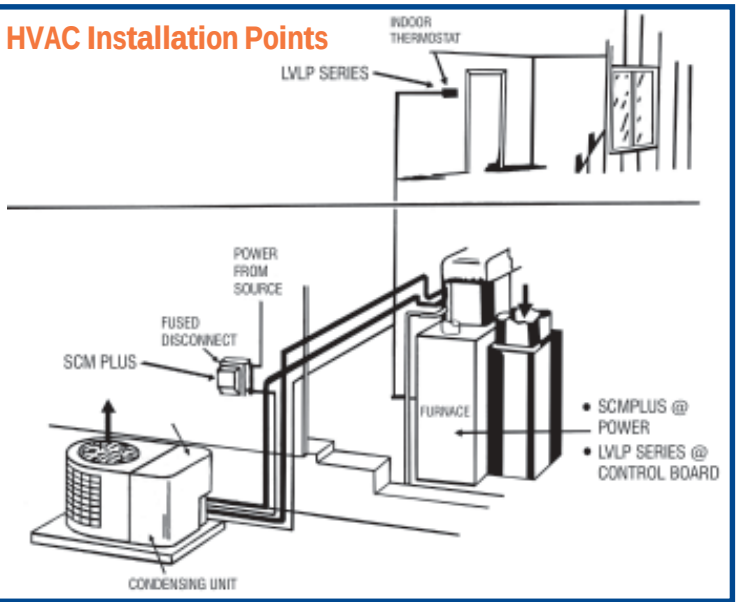
Wiring The Surge Protector:

The SCM1, SCM and SCMPLUS include two black wires and one green wire. A surge protector works by shunting the voltage to ground. A good ground is imperative. The National Electrical Code (NEC) maximum resistance at ground is 25 ohms.

120 VOLT WIRING
Black to Hot
Black to Neutral
Green to Ground

240 VOLT WIRING
Black to Hot
Black to Hot
Green to Ground

HVAC Installation Points



DTK-LVLP Series

Low Voltage Applications

- Available in 1, 2, 3, and 4 pairs
- UL497B listed and UL497A models available
- Specify desired clamping voltage; 7, 15, 27, 52, 75, 95, 130
- Hardwire Series Connection

*Note: these units are only examples of the many applications. Voltages may vary between different manufacturers. Please call SUPCO Technical Support Representative for specific applications.

***Any other DTK Surge Arrestor Available by Special Order.**

MODEL NO.	# OF WIRES PROTECTED	130 VRMS	95 VRMS	75 VRMS	52 VRMS	27 VRMS	15 VRMS	7 VRMS
DTK-1LVLP	2 wires	RUV	SGR	SPK	OPX	LV	X	D
DTK-2LVLP	4 wires	RUV	SGR	SPK	OPX	LV	X	D
DTK-3LVLP	6 wires	RUV	SGR	SPK	OPX	LV	X	D
DTK-4LVLP	8 wires	RUV	SGR	SPK	OPX	LV	X	D

Example: DTK-1LVLP-SCP-LV (30V DC, 2 wire) *Note: SCP adds over current protection.*

HVAC/R Low Voltage Controls Protection

RESIDENTIAL APPLICATIONS	
DTK-1LVLP-LV (24v AC)	Load side of 24v AC transformer
DTK-1LVLP-D (5v DC)	Thermostat lines, controls, sensors
COMMERCIAL APPLICATIONS	
DTK-1-4 LVLP-SCP-RUV (130v DC)	Telephone lines at master/control Communications Panel
DTK-1-4 LVLP-LV (24v AC/DC) (SCP available)	4-20 milliamp loop circuits for monitoring pressure, humidity, air quality, air flow...
DTK-1-4 LVLP-D (7v DC)	Communication circuits, RS485 Networks, temperature, air and liquid monitoring controls

Refer to and abide by all Local and State Electrical Codes for proper installation of these devices.

Surge Protection

DTK-240-3CMPLUS

DTK-240 & 480-3CMPLUS 3 Phase Surge Arrestors

- 208, 240, 480 volt three phase
- 50,000 amp surge current, per phase
- Limited lifetime warranty

Specifications

	DTK-240-3CMPLUS	DTK-480-3CMPLUS
Service Voltage	240 VAC 3 phase	480 VAC 3 phase
Max. Surge Current	50,000 Amps	50,000 Amps
Continuous Current	Unlimited	Unlimited
Max. Energy Dissipation	660 Joules	1740 Joules
MCOV	250 VAC (L-G)	510 VAC (L-G)
AC Protection Modes	L-L, L-G	L-L, L-G
Response Time	< 5ns Installed, <1ns Component Level	< 5ns Installed, <1ns Component Level
Operating Frequency	0-400 Hz	0-400 Hz
Class	Secondary Surge Arrestor, Cat C	Secondary Surge Arrestor, Cat C
Installation Point	Meter base, main panel, disconnect or weatherhead	Meter base, main panel, disconnect or weatherhead
Connection Method	Hardwired parallel	Hardwired parallel
Agency Approvals	UL-OWHX, cUL, ANSI/IEEE C62.11	UL-OWHX,cUL, ANSI/IEEE C.62.11
Housing	High Impact Plastic	High Impact Plastic
Housing Size	4.35" x 3.35" x 1.60"	4.35" x 3.35" x 1.60"
Weight	0.75 lbs	0.75 lbs
Warranty	Limited Lifetime	Limited Lifetime

Air Conditioning & Heat Pump Surge Protection Applications

EQUIPMENT SIZE	TRANSIENT POTENTIAL	PART NO.
Up to 5 Tons	Low to Moderate (Degrading arc fault Potential)	SCMPLUS DTK-3CM Series
5 Tons to 10 Tons	Moderate (Degrading/ Disruptive arc fault Potential)	DTK-120/240-SA DTK-3CM Series
10 Tons to 15 Tons	High (Disruptive arc fault Potential)	DTG Series* (Choose appropriate voltage configuration)
15 Tons to 20 Tons	High (Disruptive/ Destructive arc fault Potential)	DTGX Series* (Choose appropriate voltage configuration)
Above 20 Tons	Very High (Destructive arc fault Potential)	DTGXL Series* (Choose appropriate voltage configuration)

*Note: These items are special order. Please call SUPCO for more information (800) 333-9125

DTK-HW SERIES Single Circuit Surge Protector

- Available for 120 volt, 240 volt and 120/240 volt application
- Use indoors or outdoors to protect fire/security systems, gate motors, lab equipment, PLCs, etc.
- Diagnostic LED shows unit function, ground present, and power on

DTK-120HW Hardwire 120 Volt

- LED indicates ground presence and function
- UL1449 - Dedicated AC circuit
- Ideal for Fire Alarm and PBX applications

DTK-120/240SA Heavy Duty 120/240 Volt Secondary Arrestor

- Designed for meter base or panel installation
- Excellent RFI/EMI filtering
- Unique "ground quality" diagnostic circuit

Refer to and abide by all Local and State Electrical Codes for proper installation of these devices.

DTK-WH5 Whole House Kit

- Complete residential package with AC power, coaxial and 2 telephone line protection
- Most comprehensive and cost effective home/home office protection on the market
- Full diagnostics on main AC panel unit
- This kit includes a DTK120/240HD Series II, DTK-2LVLPSCP-RUV and a DTK-VSP-A

Specifications

	DTK-120HW	DTK-120/240SA	DTK120S15A	DTK-WH5
Service Voltage	110/125 VAC	120/240 VAC	120 VAC	N/A
Max. Surge Current	22,500 Amps	200,000 Amps	39,000 Amps	N/A
Continuous Current	Unlimited (Parallel Installation)	Unlimited	15 Amps	N/A
Max. Energy Dissipation	190 Joules	2640 Joules	480 Joules	N/A
MCOV	130 VRMS/185VPK	250VAC L-N, 500VAC L-L	130 VRMS/185 VPK	N/A
AC Protection Modes	L-N, L-G, N-G	L-G, L-L	L-N, L-G, N-G	N/A
Response Time	< 5ns Installed, <1ns Component Level	< 5ns	< 5ns	N/A
Operating Frequency	50/60 Hz	0-400 Hz	50/60 Hz	N/A
Diagnostics	Indicator Light	Indicator lights for suppression & available ground	Indicator light, loss of ground	N/A
EMI/RFI Noise Filtering	Yes	up to 50db 100KHz-100MHz	Yes	N/A
Suppressed Voltage	600V	N/A	400V	N/A
Operating Temperature	-40°F to +185°F (-40°C to +85°C)	-40°F to +185°F (-40°C to +85°C)	-40°F to +185°F (-40°C to +85°C)	N/A
Operating Environment	Outdoor Use; Out of direct weather (5%-100% non-condensing)	N/A	N/A	N/A
MTBF	6,000,000 Hours; MIL - 217H/Bellcore method	N/A	N/A	N/A
Class	AC Hard-Wired Transient	Secondary Surge Arrestor	AC Hard-Wired inline	AC Hard-Wired Transient
Installation Point	Voltage Surge Suppressor Single Circuit	Class C Meter base, main panel, disconnect or weatherhead	Transient voltage surge suppressor Single circuit, enclosure or control panel	Voltage Surge Suppressor Electrical panel, electrical disconnect
Connection Method	Hardwired parallel	Hardwired parallel	Hardwire series connection, Terminal Block	Hardwire
Agency Approvals	UL, cUL 1449, IEEE C62.41B	UL OWHX, cUL ANSI/IEEE C62.11	N/A	N/A
Housing	High Impact Plastic	NEMA 4/4X	Flame Retardent ABS	N/A
Housing Size		5.25" X 5.25" X 2.25"	5.5" X 3.3" X 2.1"	N/A
Weight	0.18 lbs	1.45 lbs	0.55lbs	1.7 lbs
Warranty	Limited Lifetime	Limited Lifetime	Limited Lifetime	Limited Lifetime

***Any other DTK Surge Arrestor Available by Special Order.**

Low Voltage Protection

APP115

All Purpose Protectors

Benefits

- Helps prevent blown fuses
- Short cycle protection
- Prevents operation in low voltage conditions
- Prevents false starting attempts
- Easy installation
- LED to indicate proper operation
- Automatically restarts

Helps protect refrigerators, window air conditioners, dehumidifiers and other appliances from damage due to power interruptions. (Brown-outs)

Specifications

	APP115
Minimum Starting Volts	90 VAC single phase
Operating Volts	115 VAC single phase
Maximum Switching	1.0 HP @ 115 VAC 12,000 BTU

General Specifications

Time Delay	4 minutes +/-1 minute
Power consumption	10 mA
Operating Temperature	14°F to 158°F (-10°C to +70°C)
Size	9.055" X 4.72" X 3.15" (230mm X 120mm X 80mm)

Refer to and abide by all Local and State Electrical Codes for proper installation of these devices.

Motor Protection

TPMP2

Compact Three Phase Motor Protector

Features & Benefits

- Low cost three phase motor protection
- Easy Installation
- Compact design
- Monitors and protects against phase loss and phase imbalance only
- Operating Temperature -40°F to +167°F (-40°C to + 75°C)
- 1/4" male spade terminal connections

Applications

- HVAC/R Motors and Pumps
- HVAC/R Compressors
- Protects Scroll and screw compressors from reverse rotation
- Material Handling Equipment (Overhead Electric Crane Motors)
- Elevator Motors
- Utilities

Sequence of Operation

The TPMP series will disconnect the motor pilot when the monitored problem is detected. The TPMP series will only re-energize the circuit when all 3 phases are activated at the full voltage ratings and the delay on make time has elapsed. The TPMP2 does not have a time delay feature.

TPMP2	
Input Line Voltage	208 - 277 VAC
Control Voltage	18 - 240 VAC
Frequency	50/60 Hz
Imbalance	Fixed 7%
Total Power Consumption	3 VA Maximum
Contact Type	N.O. & N.C. Type C
Resistive	5 AMP 240 VAC/10 AMP 120 VAC
Fire Resistive Plastic	UL-94 VO
Dimensions	2.35" x 2.43" x 1.1" (59.7 x 61.7 x 27.9 mm)
Weight	2 oz. (54 gr)

TPMPU

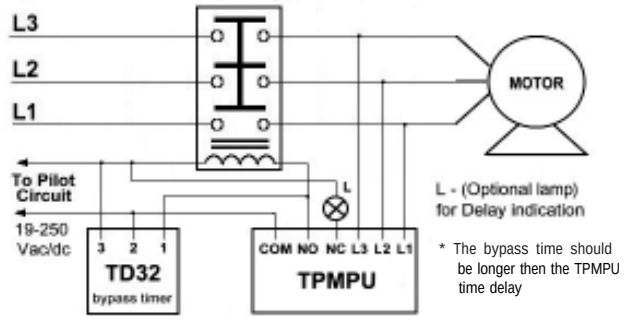
Universal Three Phase Motor Protector

Features & Benefits

- Low cost Universal three phase motor protection
- Easy Installation
- Minimizes inventory
- Monitors and protects against phase loss, reversal and imbalance
- Response time 80 milliseconds maximum
- Bright LED for on and fault indications
- Operating Temperature -40°F to +167°F (-40°C to + 75°C)
- 1/4" male spade terminal connections
- Delay on make timer
- Adjustable 10 seconds to 5 minutes
- Tolerance +/- 20%

TPMPU WIRING DIAGRAM

To protect a contactor on the Load Side with TD32 bypass timer



TPMPU	
Input Line Voltage	180 - 600 VAC
Control Voltage	18 - 240 VAC
Frequency	50/60 Hz (cut wire for Hz)
Imbalance	Adjustable +/-40 to 20%
Total Power Consumption	3 VA Maximum
Contact Ratings	10 AMP SPDT
Resistive	10 AMP 240 VAC, 12 AMP 120 VAC/24 VAC
Inductive	4.5 AMP 230 V- Cos. 0 0.6
Fire Resistive Plastic	UL-94 VO
Dimensions	5.35" x 3.68" x 1.26" (136 x 93.5 x 32 mm)
Weight	6.35 oz. (180 gr)

Light Duty Commercial Timers

Electronic Adjustable Timers

Features

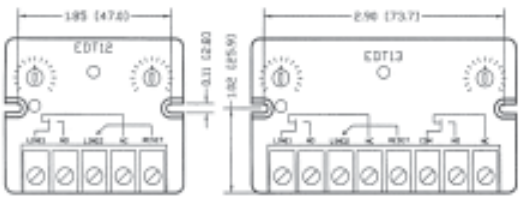
- Adjustable Interval Timers
- LED to indicate energized load
- Fast cycle button to alternate timer manually
- Automatic cycle is between 40 to 60 seconds
- Timer reset connection for external reset control
- Replaces most mechanical commercial timers
- Mounted using # 6 screws (not included)
- Available in 120 Volts or 220 Volts

Applications

- Defrost Heaters
- Water Heaters
- Indoor or Outdoor Lighting Systems
- Motors
- Pumps

Common Specifications for EDT12 and EDT13	
On Time	5 to 60 Minutes
Off Time	1 to 27 Hours
Timing Accuracy	+/- 10%
Fast Cycle	Approximately 30 Seconds

EDT12 and EDT13 mounting dimensions, In (mm)



PART NO.	OPERATING VOLTAGE	MAXIMUM MOTOR SWITCHING CAPACITY, HP	MAXIMUM SWITCHING CURRENT (RESISTIVE), AMP	NO. OF Set OF CONTACTS
EDT12	120	1	27	1
EDT12-20	220	2	25	1
EDT13	120	1	27	2
EDT13-20	220	2	25	2

Mechanical Defrost Controls

PRECISION

Features

- Dial: 24 Hour, with inner dial adjustable for defrost and 5 dial pins.
- Defrost Frequency: Adjustable from 1 t o 6 cycles per day; minimum of 4 hours between successive defrost cycles.
- Defrost Duration: Adjustable from 4 to 110 minutes in 2 minute increments.
- Switch Rating: 40 amps resistive, 2 HP per pole, 690 VA pilot duty, 120 – 240 volts AC.
- Enclosure: Heavy steel NEMA1 indoor enclosure with knockouts at bottom, back and sides. Spring hasp, with hole for a lock, holds permanently attached, side hinged door.

60410

Applications

- Commercial freezer and cooler evaporators

Accessories

X6000 - Trippers (5 per package)

- **6040** Contact Arrangement: Choice of four contact arrangements for electric heat, hot gas, or compressor shut down defrost.
- Time Initiated - Time Terminated

61410

- **6140** Contact Arrangement: Choice of three contact arrangements for electric heat, hot gas or compressor shut down defrost.
- **6140** Defrost Termination: For use with external temperature or pressure sensor. Inner dial provides back up defrost termination and protects against sensor malfunction.
- Time Initiated - Time Terminated

6040 Series Mechanical Defrost Control

PART NO.	REPLACES PARAGON	VOLTS 60 Hz.	NORMAL POSITIONS OF CONTACTS DURING REFRIGERATION CYCLE CONTACT N-3	CONTACT 1-3	CONTACTS 2-4
60410	8041-00	120	closed	open	closed
604120	8041-20	208-240	closed	open	closed
60450	8045-00	120	none	open	closed
604520	8045-20	208-240	none	open	closed

6140 Series Mechanical Defrost Control

PART NO.	REPLACES PARAGON	VOLTS 60 Hz.	CONTACT N-3	CONTACT 1-3	CONTACTS 2-4
61410	8141-00	120	closed	open	closed
614120	8141-20	208-240	closed	open	closed
61450	8145-00	120	none	open	closed
614520	8145-20	208-240	none	open	closed

General Purpose 24 Hour Mechanical Type

PRECISION

Features

- Dial: 24 hour, 2 on and 2 off trippers
- Switch Rating: 40 amps resistive or tungsten, 1000 VA pilot duty, 2 HP and 120 or 240 volts.
- Operations: Up to 10 ON/OFF operations per 24 hours. With manual ON/OFF switch that allows circuit to be hand operated without disturbing scheduled setting.
- Minimum Setting: 1 hour between On/OFF, 2 hours between OFF/ON.
- Enclosure: Non corrosive NEMA 1

CD101

Accessories

X100 - Trippers (2 per package)

CD100 Series

Applications

- Pool filter pumps
- Pool heaters
- Indoor and outdoor lighting systems
- Sprinkler systems

PART NO.	REPLACES PARAGON	VOLTS	SWITCH	ENCLOSURE
CD101	4001-00	120	SPST	NEMA1
CD104	4004-71	240	DPST	NEMA1

Universal Defrost Timers/Temporary Control

MADE IN THE USA

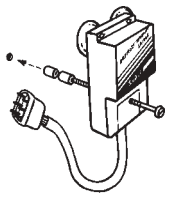
SA1005 Defrost Timer

Features/Benefits

- Allows normal refrigerator defrost operation when icemaker is removed from system.
- Direct "plug-in" fit with either suction cup or permanent screw-mounting.

Applications

- Fits All Whirlpool & Sears Refrigerators with Flexible Tray Icemakers



SC1002 Temporary Cold Control

MADE IN THE USA

Features/Benefits

- Temporary Emergency Universal Replacement
- Keeps Equipment Up & Running Until Exact Replacement or Permanent Control Is Installed
- SC1002 Can Be Used As Permanent Control
- Three Mounting Options Available Suction Cup, Velcro or Screw Mounting
- Safe & Easy Installation

Applications

- Domestic & Commercial Refrigerators & Freezers

PART NO.	TEMP. RANGE	DIFF °F	SWITCH
SC1002	-6°F to +40°F	7°	SPST

Timers

EDT Series Electronic Adjustable Defrost Timer

Features/Benefits

- Universal Replacement
- Electronic Circuitry
- Adjustable Defrost Frequency 4 to 12 Hours
- Adjustable Defrost Time 10 to 35 Minutes
- Available in 115 & 208/240 Volts
- Standard Size & Mounting To Fit Most Applications
- Standard Terminal Configuration To Accommodate Most Connections
- No Ground Wire
- Dust Proof Case
- Quiet Operation & Durability

PART NO.	VOLTAGE	MAX. COMPRESSOR RATING	MAX. RESISTIVE LOAD
EDT10	115 VAC	1/3 HP	10 Amp
EDT20	208/240 VAC	1/3 HP	5 Amp
EDT11	115 VAC	3/4 HP	20 Amp
EDT21	208/240 VAC	3/4 HP	20 Amp

Optional Accessories	
WH3	- Three wire adapter kit
WH4	- Four wire adapter kit

Applications

- Replaces Most Defrost Timers In Domestic & Commercial Refrigerators & Freezers

Spring Wound Timers

Features

- Spring wound by turning the dial for the desired amount of time
- Commercial Grade Brushed Aluminum Cover Plate
- SPST switch
- Switch circuit is in open position at the end of the timing cycle.
- Designed to fit in any single gang electrical box

Ratings

(Applies to all models)

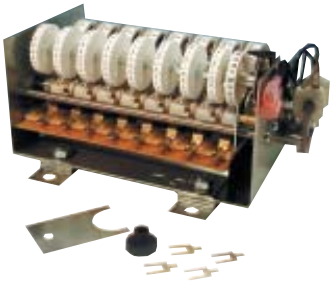
- 20 amps / 125 VAC / 1HP
- 10 amps / 250 VAC / 1 HP
- 10 amps / 277 VAC / 1HP
- 7 amps / 125 VAC Tungsten / 1 HP

Applications

- Heaters
- Fans
- Indoor & Outdoor Lights
- Pool & Spa Equipment

PART NO.	REPLACES	TIME RANGE	SWITCH
PM15M	MH Rhodes - SW15M	0-15 min.	SPST
PM30M	MH Rhodes - SW 30M	0-30 min.	SPST
PM60M	MH Rhodes - SW60M	0-60 min.	SPST

5000 Series Multi Circuit Defrost Controls



These accurate multi-circuit timing devices can individually operate from 1 to 24 switches.

Features

- Field adjustable defrost control combines ease of programming with accuracy and reliability.
- Positive snap acting switches to provide positive and immediate switching.
- Time Cycle: Adjustable in 2 minute increments from 2 to 120 minutes.
- Motor: Synchronous type, completely sealed and lubricated.
- Motor Power: 4 watts
- Motor Temperature Range: (Ambient): +35°F to +175°F
- Base: All steel construction, 16 gauge-channeled steel. Zinc plated for corrosion resistance and durability.
- Contact Transfers: Maximum number of contact transfers per 24-hour period for each program timer is 64 (8-switch unit) or 32 (4-switch unit).
- Terminals: ¼ inch male quick connect (standard).

PART NO.	VOLTS	Hz	NO. OF SWITCHES	NO. OF MOTORS
50100B	120	60	8	2
50103B	240	60	8	2
5011	Slave	Slave	8	Slave
5014	Slave	Slave	4	Slave
50150B	120	60	4	2
50153B	240	60	4	2

Applications

The 5000 series controls are designed to control a series of operations with a variable time sequence; such as a refrigerator defrost cycle.

*For wiring accessories refer to pages 102-106 Terminals & Connectors.

TD Series Time Delays

Standard Features / Specifications

- Three styles available: Delay on Make, Delay on Break & By – Pass
- Fixed or adjustable delay ranges
- Initiate timer in 70 milliseconds
- Broad input voltage range (Pilot Circuit)
  19 to 250 VAC/VDC, 50/60 Hz (TD60, TD70 TD32)
  19 to 130 VAC/VDC, 50/60 Hz (TD74)
- Maximum load 1.0 amp, 10 amp inrush
- Varying models work with or without anticipator type thermostats
- Terminal or wire connections available
- Operating Temperature Range 0°F to +160° F (-18°C to +71°C)
- Compact Size 2" x 2" x .075" (5.08 x 5.08 x 1.9 cm)
- Non positional single hole mounting
- All parameters are subject to change as per special requirements
- By – pass a control or device during start up
- Helps to reduce power surges in multiple compressor applications

General Applications

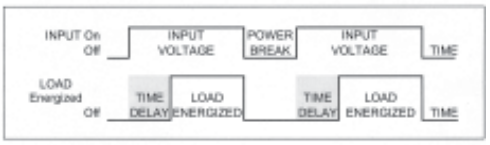
- Protection from short cycling of compressor
- Ideal for compressor staging

TD60 Series
Delay on Make Timers (DOM)

Mode of Operation

- Upon application of power the time delay initiates. On completion of selected delay period, the load is energized. Timer will reset on power interruption or when thermostat disconnects.

Timing Diagram



PART NO.	DELAY RANGE ADJUSTABLE	DELAY RANGE FIXED (min)	CONNECTIONS	REPLACES
TD68**	6 sec to 8 min	n/a	2 - 1/4" male terminals	Diversitech AC-800-ADM1 / ICM 105 / A-1 706 / Mars 32391
TD69*	6 sec to 8 min	n/a	2 - 1/4" male terminals	Diversitech AC-800-ADM1 / ICM 102 / A-1 701 / Mars 32391
TD69W*	6 sec to 8 min	n/a	2 - 6" long wire leads	

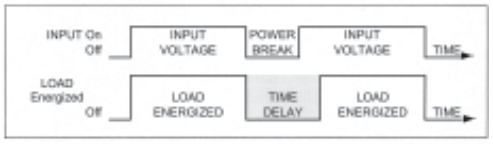
*Cut the jumper to use in 120/240 volts. **The TD68 is not for use with a cooling anticipator.

TD70 / TD74 Series
Delay on Break Timers (DOB)

Mode of Operation

- Upon application of power the load is energized immediately. When the thermostat opens or on power interruption the load is de-energized and the time delay initiates. The load will be energized again after the delay time has elapsed.

Timing Diagram



PART NO.	DELAY RANGE ADJUSTABLE	DELAY RANGE FIXED (min)	CONNECTIONS	REPLACES
TD72**	6 sec to 5 min	n/a	2 - 1/4" male terminals	Diversitech ASC500-ADB1 / ICM203 / Mars 32392 / A-1 EAC-501-ADJ
TD73*	6 sec to 5 min	n/a	2 - 1/4" male terminals	Diversitech ASC500-ADB1 / ICM203 / Mars 32392 / A-1 EAC-501-ADJ
TD73W*	6 sec to 5 min	n/a	2 - 6" long wire leads	
TD74	6 sec to 5 min	n/a	4 -1/4" male terminals	ICM203 / Mars 32382 / A-1 EAC-426-300

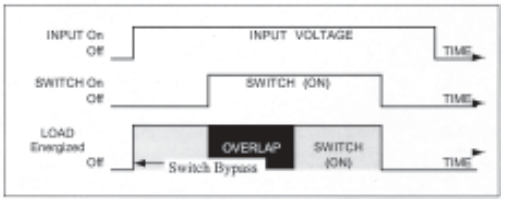
*Cut the jumper to use in 120/240 volts. **The TD72 & TD74H is not for use with a cooling anticipator.

TD32 By Pass Timer
On Delay Interval Timer /
Normally Closed Delay on Make (DOM)

Mode of Operation

- With the power applied to the input the load is energized immediately and remains energized for the length of the time delay regardless of the state of the switch being bypassed. This timer is essential for bypassing low-pressure controls and switches during cold start up conditions.

Timing Diagram



PART NO.	DELAY RANGE ADJUSTABLE	CONNECTIONS	REPLACES
TD32	10 - 1,000 seconds +/- 20 %	2 - 1/4" male terminals	ICM175 / Mars 32395

Motors

Ventilator Motors

See page 121 for Motor Rotation

SM550 Series Ventilator Motors

Features/Benefits
- Exact Replacement for Nutone Range Hood Ventilators
- C Frame Design
- SM550 Motor includes FB460 Impeller

Applications
- Range Hoods
- Bathroom Exhaust Fans

PART NO.	SPEED	RPM	SHAFT DIMENSIONS	ROTATION	STACK	LEAD	NUTONE NO.	ROBERTSHAW NO.
SM550	1	3000	7/32" X 1 3/4"	CCW	1/2"	120 V Plug	C65878	33-100
SM551	2	High 3000 Low 1640	7/32" X 1 7/16"	CW	7/8"	2 Speed Plug	C52367	33-101
SM552	1	3000	7/32" X 1 1/4"	CCW	3/4"	120 V Plug	C63675	33-103
SM553	1	3000	7/32" X 1 3/4"	CCW	3/4"	Eyelet	C66582	33-104
SM554	2	High 3300 Low 3200	7/32" X 1 7/16"	CCW	7/8"	2 Speed Plug	C27987	33-105
SM555	1	3000	7/32" X 2 3/8"	CCW	5/8"	120 V Plug	C68627	33-106
SM556	1	3000	7/32" X 1 7/8"	CCW	5/8"	120 V Plug	C34484	N/A

SM700 Series Ventilator Motors

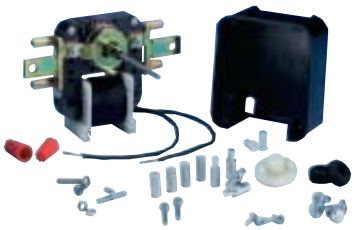
Features/Benefits
- Exact Replacement for Broan Ventilators
- C Frame Design
- 120 Volts / 60 Hz
- CCW Rotation
- Multi Fit To Work With Other Brand Ventilators

Tech Tips
- "F" suffix on shaft length indicates flat on shaft.
- "S" suffix indicates spline shaft.
- When replacing a motor make sure that the type, voltage, amperage, wattage, rotation, shaft size, stack size and the electrical connectors are the same as the original motor.

PART NO.	SPEED	SHAFT DIA.	STACK	SHAFT LENGTH	PLUG TYPE	REPLACES BROAN NO.
SM700	2	7/32"	3/4"	1 1/4" F	3 PIN	99080218
SM701	1	1/4"	7/8"	2 3/4" F	2 PRONG	99080159
SM702	1	1/4"	7/8"	2 3/4" F	5 PIN	99080160
SM703	1	5/32"	1/2"	1 3/4" S	2 PRONG	99080245
SM704	1	7/32"	7/8"	1 1/4" F	2 PRONG	99080166
SM705	1	.181"	5/8"	1 1/2" F	2 PRONG	99080216

Evaporator Fan Motors

SM999 Universal Evaporator Fan Motor Kit – 120 VAC



Features/Benefits
- Prefastened Multi Fit, Break Off Mounting Bracket
- Break Off 2" Motor Shaft with Breakaways at ½" and 1-1/2"
- Includes All Mounting Accessories and Hardware
- Reversible Rotation
- Single Speed
- Shaft Diameter 1/8"

Applications
- Replaces Over 450 Different Evaporator Type Motors.
- Direct Replacement For The GEM 240 Series, Mars 90999 and Robertshaw 33-110, 33-112 & 33-114.

SM998 Universal Evaporator Fan Motor Kit – 220 VAC

Features/Benefits
- Includes the same Features / Benefits, Applications and Specifications as the SM999, except it operates on 220 VAC 50/60 Hz.
- Direct Replacement for the Mars 90998

PART NO.	DESCRIPTION
SM999	120 VAC, 3000 RPM, 1/200 H.P., .31 AMP impedance protected
SM998	220 VAC, 3000 RPM, 1/200 H.P., .31 AMP impedance protected

SM999BRKT

SM999/SM998 Kit Replacement Motor Bracket

SM140-40A Blower Fan Assembly

Features/Benefits

- Direct replacement kit for Nutone bath fans
- Replaces Nutone motor p/n K5895 and kit p/n K5894
- Kit includes single speed motor, 3-3/4"x2" blower wheel and mounting bracket.
- Motor includes 6" wire leads with molded plug.

PART NO.	SPEED	RPM	VOLTS	AMPS	ROTATION	NUTONE
SM140-40A	1	2400	115	0.9	CCWSE	K5894 Motor Kit K5895 Motor Only

Exact Replacement & Utility Motors

SM600 Series Utility Motor Kits

Features/Benefits

- Versatile replacement for all "C" Frame and "3 1/2" Round Style motors
- Impedance Protected
- SM670, SM672 and SM673 include fan blades FB402 and FB550
- SM675 is thermal protected
- Available in sleeve or ballbearing design
- SM675 includes fan blade FB550 only
- Motor Kits include complete hardware and mounting kits

Applications

- Reach In Cooler & Freezer Evaporators
- Walk In Cooler & Freezer Evaporators
- Exhaust Fans
- Ventilator Fans
- Range Hoods
- Electric Unit Heaters
- Forced Air Heaters

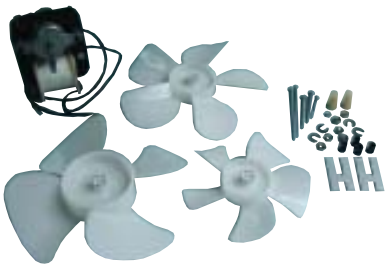
Specifications

PART NO.	TYPE	VOLTS AC	RPM	CURRENT (AMPS)	SHAFT DIMENSIONS	STACK SIZE	ROTATION (REVERSIBLE)	REPLACES ACME MIAMI	REPLACES BOHN	REPLACES ROBERTSHAW	REPLACES MARS
SM670[a]	Sleeve	120	3000	0.55	3/16" X 1-1/4"	5/8"	CW/CCW	600, 700, 710, 4670		14001	90971
SM671	Sleeve	120	3000	0.55	3/16" X 1-1/4"	5/8"	CW/CCW			14003	
SM672[a]	Sleeve	240	3000	0.32	3/16" X 1-1/4"	5/8"	CW/CCW	602, 702, 4672		14005	90982
SM673[a]	Sleeve	120	3000/1550	.55/.34	3/16" X 1-1/4"	5/8"	CW/CCW	4673		14007	
SM674	Sleeve	120	3000	0.55	3/16" X 1-1/4"	5/8"	CW/CCW			14009	
SM675[b]	Sleeve	120/240	3000	1.0/.50	3/16" X 2-3/8"	1"	CW/CCW	7502		90970	
SM676	Sleeve	120	3000	0.5	3/16" X 1-1/4"	7/8"	CW/CCW	780		14011	
SM677	Sleeve	120	2000	0.33	3/16" X 1-1/2"	5/8"	CW/CCW			14013	
SM678	Sleeve	120	3000	0.55	3/16" X 1-1/2"	1/2"	CW/CCW			14015	
SM679	Sleeve	120	3000	0.5	7/32" X 1-1/2"	5/8"	CW/CCW			14017	
SM680	Sleeve	120	3000	0.9	3/16" X 1-1/2"	1-1/8"	CW/CCW	750		14019	90970
SM681	Sleeve	120	3000/1550	.82/.21	3/16" X 1-3/8"	5/8"	CW/CCW			14021	
SM683	Sleeve	240	3000	0.25	3/16" X 1-1/4"	7/8"	CW/CCW			14025	90970
SM684	Sleeve	120	3000/1550	.82/.21	7/32" X 2-1/4"	1"	CW/CCW				
SM685	Sleeve	120	3000/1550	.82/.21	3/16" X 1-3/4"	7/8"	CW				
SM686	Ball Bearing	120	3000	0.41	3/16" X 1-1/4"	5/8"	CW/CCW	BB600, BB700, BB710, BB4670			90948
SM687	Ball Bearing	120/240	3000	1.6/.80	3/16" X 2-3/8"	1-1/8"	CW/CCW	BB7502			
SM688	Ball Bearing	120	3000	0.86	3/16" X 1-1/2"	1-1/8"	CW/CCW	BB750			
SM690C	Sleeve	120	3000	0.4	3/16" X 1-1/2"	5/8"	CW				
SM691	Sleeve	120	3000	.80	3/16" X 1-1/4"	5/8"	CW		5007S 5036F 5018S		
SM692	Sleeve	240	3000	.40	3/16" X 1-1/4"	5/8"	CW		5007T 5018T		
SM775	Sleeve	120/240	3000	1.0/.52	3/16" X 2-3/8"	1"	CW/CCW				

[a] Includes hardware kit: 2 fan blades, mounting bracket, hub adapter, 1/4" shaft adapter, & 5/16" shaft adapter.

[b] Includes hardware kit: 1 fan blade, mounting bracket, hub adapter, 1/4" shaft adapter, & 5/16" shaft adapter. Motor shaft is 2-3/8" with breakoffs at 5/8" & 1-7/8" points.

Motors



SM6700B Motor Kit Assembly

Features/Benefits

- Replaces Acme Miami 700
- OEM replacement for Bohn, Heatcraft, Uppco, Singer, GE 33 Series.
- Kit includes reversible motor, three fan blades, hardware kit and Instructions.

Applications

- Commercial refrigeration evaporators

NEW

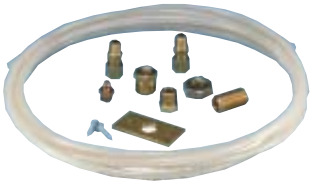
Specifications

VOLTS	HERTZ	AMPS	RPM	SHAFT SIZE	STACK SIZE	BEARING TYPE
120	60	.55	3000	3/16" x 1 1/4"	5/8"	Sleeve

SM6700B Replacement Fan Blades 3/16" Hub

FB402	4", CW, 5 wing
FB455 (Bohn 5101B)	5-9/16", CCW, 5 wing
FB550	5 1/2", CCW, 4 wing

Motor Accessories



GFK1 Grease Fitting Kit

- One time installation
- Provide easy access at hard to get lubrication points
- Makes preventative maintenance (PM's) routine
- Eliminates need for cover removal and equipment disassembly
- Complete with 10' high pressure tubing and required fittings
- Tubing rated -60°F to 200°F

HVAC - Duct Boosters

Conforms to UL Standard 507

DB Series Duct Boosters

For increased Air Flow in both hot and cold forced air systems, the DB Series Duct Boosters provide the easy, economical solution.

Features/Benefits

- Easy Installation
- Energy Savings
- Economical Solution
- Fits in round, square or rectangular ducts
- Operates only when you want it
- 1 Year Warranty
- Motor is thermally protected

Applications

- Problem heating and cooling areas
- Low air flow areas

Installation Tools Required

- Screwdriver
- 1/2" and 1/8" sheet metal drill bits
- Sheet metal shears
- Electrical junction box (if required by code)

PART NO.	DIMENSIONS	FAN BLADE	VOLTAGE	MOTOR RATINGS	CFM
DB6	6" x 6"	5.25", 1950 rpm	115V 60Hz	.35 A, 30 Watts	250
DB6-220	6" x 6"	5.25", 1950 rpm	220V 50Hz	.25 A, 30 Watts	250
DB8	8" x 8"	7", 1750 rpm	115V	60 Hz .75 A, 60 Watts	500
DB8-220	8" x 8"	7", 1750 rpm	220V	50 Hz .45 A, 60 Watts	500
DB10	8" x 10"	8", 1300 rpm	115V	60 Hz 1.5 A, 120 Watts	650
DB12	9" x 12"	10", 1300 rpm	115V	60 Hz 1.5 A, 120 Watts	800

Mounting Kit and Templates include.

*Use the SUPCO DAVM+ to check duct operation and efficiency. Refer to page 76 for complete details.

Exact Replacement Plastic Impellers

Features/Benefits
- Broan & Nutone Exact Replacement Impellers
- 3 Sizes Available

Tech Tip
- "F" Suffix on impeller hole indicates impeller will accomodate flat shaft.

Applications
- Bathroom Ventilators
- Kitchen Ventilators

PART NO.	REPLACES MFG. NO.	BLADE O.D.	HOLE I.D.
SB001	Nutone 68920	4 5/8"	.181F
FB460	Broan 9910379H	4 9/16"	.218
FB461	Broan 99110630	4 5/8"	.150

Plastic Blower Wheels

Features/Benefits
- 3 Sizes Available

Applications
- Bathroom Ventilators
- Kitchen Ventilators

PART NO.	SHAFT	ROTATION	BOTTOM DIAMETER	DEPTH	TOP DIAMETER	OEM PART NO.
FB250	1/8"	CW	2 1/2"	1"	2 11/16"	
FB325	3/16"	CW	3"	1"	3 1/4"	
FB590	1/4"	CW	5 3/4"	2"	6 1/8"	Nutone 59000A

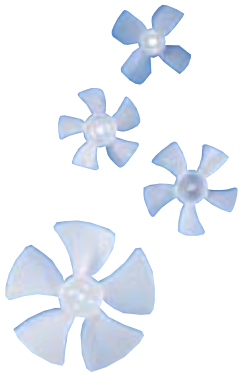
Plastic Vent Hood Fan Blades

Features/Benefits
- 2 Sizes Available

Applications
- Ducted & Non Ducted Vent Hoods

PART NO.	SHAFT	DIAMETER	NO. BLADES	ROTATION	PITCH
FB660	7/32"	6 5/8"	5 CW	25°	
FB665	7/32"	6 5/8"	5 CW	12°	

Plastic Fan Blades – General Purpose



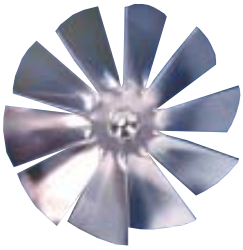
Features/Benefits
- Celcon Plastic Construction
- Light Weight Design Reduces Bearing Wear & Vibrations
- 2-1/2" to 8" Diameter Sizes Available (1/2" increments)
- Integral Hub Available In 1/8", 3/16", 1/4" & 5/16" Sizes
- Color Coded Rotation White = CW Gray = CCW
- Eliminates Bent or Misaligned Blades
- Low Air Noise

Applications
- Refrigerator & Freezer Evaporators
- Ventilators

PART NO.	SHAFT	DIAMETER	NO. OF BLADES	ROTATION	PART NO.	SHAFT	DIAMETER	NO. OF BLADES	ROTATION	PART NO.	SHAFT	DIAMETER	NO. OF BLADES	ROTATION
FB299	3/16"	2 1/2"	4	CW	FB503	5/16"	5"	5	CW	FB650	3/16"	6 1/2"	5	CW
FB300	1/8"	3"	4	CW	FB504	3/16"	5"	5	CCW	FB651	1/4"	6 1/2"	5	CW
FB301	3/16"	3"	4	CW	FB505	1/4"	5"	5	CCW	FB652	5/16"	6 1/2"	5	CW
FB302	3/16"	3 1/2"	4	CCW	FB506	5/16"	5"	5	CCW	FB701	1/4"	7"	5	CW
FB350	3/16"	3 1/2"	4	CW	FB550	3/16"	5 1/2"	4	CCW	FB702	5/16"	7"	5	CW
FB401	1/8"	4"	5	CW	FB551	1/4"	5 1/2"	4	CCW	FB703	1/4"	7"	5	CCW
FB402	3/16"	4"	5	CW	FB601	3/16"	6"	6	CW	FB704	5/16"	7"	5	CCW
FB403	1/8"	4"	5	CCW	FB602	1/4"	6"	4	CW	FB801	1/4"	8"	5	CW
FB404	3/16"	4"	5	CCW	FB603	5/16"	6"	4	CW	FB802	5/16"	8"	5	CW
FB406	1/8"	4"	4	CW	FB604	3/16"	6"	4	CCW	FB803	1/4"	8"	5	CCW
FB501	3/16"	5"	5	CW	FB605	1/4"	6"	4	CCW	FB804	5/16"	8"	5	CCW
FB502	1/4"	5"	5	CW	FB606	5/16"	6"	4	CCW					

Fan Blades

Aluminum Fan Blades - General Purpose



Features/Benefits

- 22 Gauge Aluminum Alloy Construction
- Light Weight Design Reduces Bearing Wear & Vibration
- 4" to 6 1/2" Diameter Sizes Available (1/2" increments)
- Slotted Set Screw Hub Sizes 3/16", 7/32" & 1/4"
- Clockwise or Counter Clockwise Rotations

Applications

- Refrigerator & Freezer Evaporators
- Ventilators

Tech Tip

- Rotation is determined by facing air discharge

PART NO.	SHAFT	DIAMETER	NO. BLADES	ROTATION	PITCH	PART NO.	SHAFT	DIAMETER	NO. BLADES	ROTATION	PITCH
FB150	3/16"	4"	10	CW	35	FB172	1/4"	5 1/2"	4	CW	22
FB151	1/4"	4"	10	CW	35	FB173	3/16"	5 1/2"	4	CCW	22
FB152	3/16"	4"	10	CCW	35	FB174	7/32"	5 1/2"	4	CCW	22
FB153	1/4"	4"	10	CCW	35	FB175	1/4"	5 1/2"	4	CCW	22
FB156	3/16"	4 1/2"	10	CW	40	FB178	3/16"	6"	4	CW	20
FB157	1/4"	4 1/2"	10	CW	40	FB179	7/32"	6"	4	CW	20
FB158	3/16"	4 1/2"	10	CCW	40	FB180	1/4"	6"	4	CW	20
FB159	1/4"	4 1/2"	10	CCW	40	FB181	3/16"	6"	4	CCW	20
FB162	3/16"	5"	4	CW	19	FB182	7/32"	6"	4	CCW	20
FB163	7/32"	5"	4	CW	19	FB183	1/4"	6"	4	CCW	20
FB164	1/4"	5"	4	CW	19	FB186	3/16"	6 1/2"	4	CW	20
FB165	3/16"	5"	4	CCW	19	FB187	7/32"	6 1/2"	4	CW	20
FB166	7/32"	5"	4	CCW	19	FB188	1/4"	6 1/2"	4	CW	20
FB167	1/4"	5"	4	CCW	19	FB189	3/16"	6 1/2"	4	CCW	20
FB170	3/16"	5 1/2"	4	CW	22	FB190	7/32"	6 1/2"	4	CCW	20
FB171	7/32"	5 1/2"	4	CW	22	FB191	1/4"	6 1/2"	4	CCW	20

Plastic Fan Blades Direct Replacement and Hub Type

Features/Benefits

- Eight Popular Direct Replacements
- Available in Hub or Shaft Mount 1/8", 3/16"
- Clockwise & Counter Clockwise Rotations

Applications

- Refrigerator & Freezer Evaporators

PART NO.	SHAFT	DIAMETER	BLADES	ROTATION	REPLACEMENT FOR
FB351	HUB	4"	5	CW	Universal Appl
FB352	HUB	4"	5	CCW	Universal Appl
FB353	HUB	4"	4	CCW	Whpl/Cldspt 513543
FB450	1/8"	4 1/2"	5	CCW	GE WR60X114
FB455	3/16"	5 9/16"	5	CCW	Bohn 5101B
FB456	1/8"	5 9/16"	5	CCW	Bohn 5036F,5007S,5018S
FB457	1/8"	4"	4	CCW	Whirlpool/482731
FB718	HUB	7"	5	CW	Admiral 62934-2, 69958-1
FB718G	HUB	7"	5	CW	GEM FB718 SubZero 3-15-032-0

Aluminum Condenser Fan Blades

Features/Benefits

- Aluminum Construction
- 9 Popular Sizes Available
- 6" to 10" Diameter
- Clockwise & Counter Clockwise Rotations
- 5 Blades

Applications

- Unit Bearing Motors with 1/4" x 20 Threaded Shafts

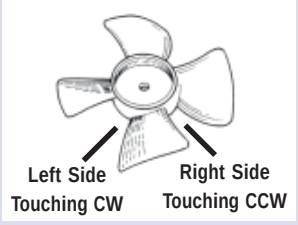
PART NO.	DIAMETER	NO. OF BLADES	ROTATION	PITCH
FB101	6"	5	CW	-
FB102	6"	5	CCW	-
FB103	7"	5	CCW	20°
FB104	7"	5	CW	20°
FB105	8"	5	CCW	20°
FB106	8"	5	CW	20°
FB107	8 3/4"	5	CW	20°
FB108	10"	5	CCW	29°
FB109	10"	5	CW	22°

Tech Tip

Fan Blade Rotation

To determine the blade rotation. CW – Clockwise & CCW – Counter Clockwise

1. Lay blade on a flat surface (either side up).
2. The direction of rotation is determined by observing which blade edge touches the flat surface.
3. Left side is touching the flat surface = CW.
4. Right side is touching the flat surface = CCW.



High precision control at economical prices…

Automatic Reset High, Low & Condenser Fan Cycling Pressure Switches

Features

- High Pressure SPST open on pressure rise
- Low Pressure SPST open on pressure fall
- Condenser Fan Cycling SPST open on pressure rise
- 1/4" female SAE connection
- Snap acting stainless steel hermetically sealed sensor (SHP, SLP & SFC)
- Small size and light weight for direct mounting
- Excellent set point repeatability / stability
- Pressure Range: 0 to 650 PSI
- Burst Pressure: 5000 PSI
- Life @ Rated Load: 100,000 cycles
- Rated Voltage: 50 / 60 Hz, 24 / 120 / 240 Volts (6 RLA, 36 LRA)
- Temperatures: Ambient 20°F to 176°F (-30°C to 80°C). Fluid 60°F to 250°F (-50°C to 120°C).

Applications

- Refrigeration systems
- Air conditioning systems
- Heat pump systems

Specifications/Competitive Comparison

LOW PRESSURE

PART NO.	OPEN PSI	CLOSE PSI	TOLERANCE	KLIXON PART NO.	MARS PART NO.	A-1 PART NO.	RANCO PART NO.	ROBERTSHAW PART NO.	TECUMSEH PART NO.	JOHNSON CTRL PART NO.	WILSPEC PART NO.
SLP0520	5	20	+/- 5 PSI	PS80-K2-F0305-020-005	33329	PS-LP05-20	MPL-7001	3101-001	N/A	P100AC-1C	
SLP0530	5	30	+/- 5 PSI					3100-002			
SLP1025	10	25	+/- 5 PSI	PS80-K2-F0307-025-005	33330	PS-LP10-25	MPL-7011	3100-050	N/A	P100AP201C	
SLP2045	20	45	+/- 5 PSI					3100-003, MG20-1133			
SLP1535	15	35	+/- 5 PSI	PS80-K2-F0312-035-005	33333	N/A	MPL7002	3100-001	N/A	P100AC2	
SLP2550	25	50	+/- 5 PSI	PS80-K2-F0316-050-005	33362	PS-LP25-50	MPL-7012	3100-103	N/A	N/A	
SLP2565	25	65	+/- 5 PSI	PS80-K2-F0323-065-005	33336	N/A	N/A	3101-002	N/A	N/A	
SLP2580	25	80	+/- 5 PSI	PS80-K2-F0325-080-005	33363	PS-LP25-80	MPL-7003	3101-003 3100-051	N/A	N/A	
SLP3560	35	60	+/ -5 PSI				MPL7004	3100-004			
SLP4560	45	60	+/- 5 PSI				MPL7005			P100AP2C	
SLP4080	40	80	+/- 5 PSI	PS80-K2-F0326-080-005	33364	PS-LP40-80	MPL-7014	3101-005 3100-052	N/A	N/A	
SLP5090	50	90	+/- 5 PSI	PS80-K2-F0328-090-005	33339	N/A	N/A	N/A	N/A	N/A	
SLP90120	90	120	+/- 5 PSI	N/A	N/A	N/A	N/A	N/A	N/A	N/A	HS200-23-0002

HIGH PRESSURE

PART NO.	OPEN PSI	CLOSE PSI	TOLERANCE	KLIXON PART NO.	MARS PART NO.	A-1 PART NO.	RANCO PART NO.	ROBERTSHAW PART NO.	TECUMSEH CTRL NO.	JOHNSON PART PART NO.	WILSPEC NO.
SHP200150	200	150	+/- 15 PSI	PS80-K1-0334-200-150	33353	PS-HP200-150	N/A	N/A	N/A	N/A	
SHP250150	250	150	+/- 15 PS1	PS80-K1-0336-250-150	33354	PS-HP250-150	N/A	N/A	N/A	N/A	
SHP250180	250	180	+/- 15 PSI				MPH7101				
SHP275195	275	195	+/- 15 PSI	PS80-K1-0339-275-195	33310	N/A	MPH-7102	3100-112	N/A	P100CC9C	
SHP300200	300	200	+/- 15 PSI	PS80-K1-0341-300-200	33355	PS-HP300-200	MPH-7103	N/A	N/A	N/A	
SHP325225	325	225	+/- 15 PSI				MPH-7104				
SHP325230	325	230	+/- 15 PSI	PS80-K1-0346-325-230	33313						
SHP350250	350	250	+/- 15 PSI	PS80-K1-0348-350-250	33356 3316	PS-HP350250	MPH-7105	3101-201 3100-150	N/A	N/A	
SHP375265	375	265	+/- 15 PSI	PS80-K1-0353-375-265	33319	N/A	MPH-7106	3100-111	N/A	N/A	
SHP400200	400	200	+/- 15 PSI	PS80-K1-0357-400-200	33357	PS-HP400-200	N/A	3100-152	N/A	N/A	
SHP400280	400	280	+/- 15 PSI	PS80-K1-0358-400-280	33322	N/A	N/A	N/A	N/A	N/A	
SHP400300	400	300	+/- 15 PSI	PS80-K1-0359-400-300	33358	PS-HP400-300	MPH-7107	3101-202 3100-151	84076-2/82-2	P100CA-1C P100CP1C	
SHP425300	425	300	+/- 15 PSI	PS80-K1-0360-425-300	33325	N/A	N/A	N/A	N/A	N/A	
SHP425325	425	325	+/- 15 PSI				MPH7108	3100-100 3100-203		P100CA2C P100CP2C	
SHP450250	450	250	+/- 15 PSI	PS80-K1-0363-450-250	33359	PS-HP450-250	N/A	N/A	N/A	N/A	NA
* SHP610420	610	420	+/- 15 PSI								N/A

Orange = New Items *Used in R410A Applications

Pressure Switches

Specifications/Competitive Comparison

FAN CYCLING OPEN ON FALL PART NO.	OPEN PSI	CLOSE PSI	TOLERANCE	KLIXON PART NO.	MARS PART NO.	A-1 PART NO.	RANCO PART NO.	ROBERTSHAW PART NO.	TECUMSEH PART NO.	JOHNSON CONTRL NO.	COPELAND PART NO.
SFC75120	75	120	+/- 15 PSI				MPF7006				
SFC110170	110	170	+/- 15 PSI				MPF7007				
SFC125265	125	265	+/- 10 PSI	20PS116KA264G126G	33340	N/A	N/A	N/A	N/A	N/A	
*SFC200365	200	365	+/- 15 PSI								KSALA030410
SFC210275	210	275	+/- 15 PSI	20PS107KA275K210K	33341	N/A	MPF-7009	3101-101 3100-079	84077-4	N/A	
SFC150225	150	225	+/- 15 PSI	N/A	N/A		MPF-7008	N/A	N/A	P100AP3C	
SFC170250	170	250	+/- 15 PSI	N/A	N/A	N/A	N/A	N/A		P100AP4C	
*SFC300400	300	400	+/- 15 PSI				MPF7010				

Orange = New Items * Used in R410A Applications

Manual Reset High Pressure Switches

- Open on pressure rise
- 1/4" female SAE connection
- Increased reliability
- Maintenance free design
- Bistable disc
- Environmentally sealed sensors
- Safety Feature / Latching mechanism
- Line mount with mechanical fittings
- Pressure Range: 200 – 500 PSI
- Burst Pressure: 3500 PSI
- Proof Pressure: 600 PSI (Short term max over pressure)
- Life @ Rated Load: 30,000 cycles
- Rated Voltage: 50 / 60 Hz , 24 / 120 / 240 Volts (6 RLA, 36 LRA)
- Temperatures: Ambient 20°F to 176°F (-30°C to 80°C). Fluid 60°F to 250°F (-50°C to 120°C).

Specifications/Competitive Comparison

MANUAL RESET PART NO.	OPEN PSI	TOLERANCE	KLIXON PART NO.	MARS PART NO.	A-1 PART NO.	RANCO PART NO.	ROBERTSHAW PART NO.	TECUMSEH PART NO.	JOHNSON CTRL PART NO.	COPELAND PART NO.
SMR375	375	+/- 15 PSI				MPH7109			P100DC3C	
SMR410	410	+/- 15 PSI	29PSL012-24	33365	PSMF-HP410	MPH7110	3101-301	N/A 3100-103	P100DA-1C	
SMR440	440	+/- 15 PSI	N/A		N/A	N/A	3100-104	N/A	N/A	
*SMR610	610	+/- 15 PSI								NA

Orange = New Items, Please contact SUPCO for any other pressures, ranges or styles needed. * Used in R410A Applications

Driers

SUD Series Copper Driers

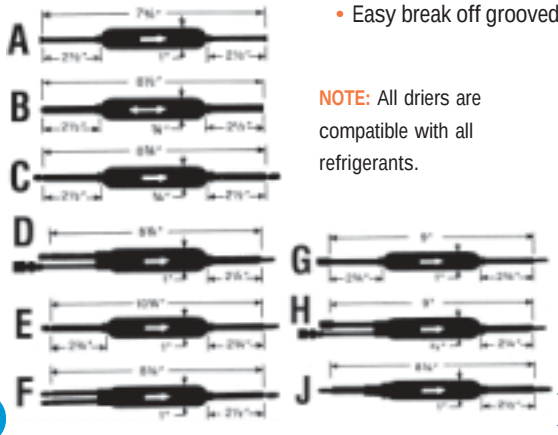
SUPCO Copper Driers are high quality, high capacity original equipment components for use on both domestic and commercial refrigerators, freezers and air conditioners.

Features

- 100% XH-9 beaded molecular sieve
- Hermetically sealed
- Copper shells and end tubes
- High capacity
- Easy break off grooved ends

PART NO.	DROPS OF WATER REMOVED R-12 75°	R-12 125°	R-22 75°	R-22 125°	RECOMMENDED TONNAGE R-12	R-22
SUD103	37.5	34	34	32	1/3	1/2
SUD109	37.5	34	34	32	1/3	1/2
SUD110	37.5	34	34	32	1/3	1/2
SUD111	74	68	68	64	3/4	1
SUD112	99	93	95	90	1	2
SUD113	74	68	68	64	3/4	1
SUD114	74	68	68	64	3/4	1
SUD115	37.5	34	34	32	1/3	1/2
SUD116	74	68	68	64	3/4	1

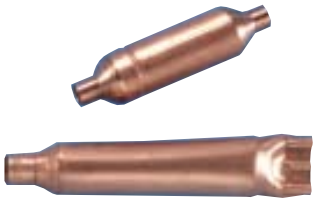
SIZE CHART



NOTE: All driers are compatible with all refrigerants.

SUPCO Copper Extended Driers

PART NO.	DESCRIPTION	INLET	OUTLET	DIMENSIONS (SEE CHART)
SUD103	1" Plugged Ends	1/4" O. D.	1/4" O. D.	A
SUD109	3/4" Non-Directional	1/4" O. D.	1/4" O. D.	B
SUD110	3/4" Fused Ends	1/4" O.D.	1/4" O.D.	C
SUD111	1" Charging Drier	1/4" O.D. 1/4" Flare	1/4" O.D. or Cap	D
SUD112	1" Step Down Drier	5/16" O.D.	5/16" O.D. or Cap	E
SUD113	1" Double Inlet	(2)1/4" O. D.	1/4" O. D.	F
SUD114	1" Fused Ends	1/4" I.D. 1/4" O. D.	1/4" O.D. or Cap	G
SUD115	3/4" Charging Drier	1/4" I.D. 1/4" O. D. 1/4" Flare	1/4" O. D. or Cap	H
SUD116	1" Step Down Drier	3/16", 1/4", 5/16" I.D.	5/16" I.D. or Cap	J



S200 Series Copper Strainers

SUPCO copper strainers are specifically designed for reopened systems. Each strainer contains an oversized screen area for filtering large quantities of foreign matter from systems that were burnt out.

PART NO.	INLET	OUTLET	O.A. LENGTH	O.D.	FEED
S210	1/4"	.098 CAP	2 3/4"	3/4"	1
S211	1/4"	.125 CAP	2 3/4"	3/4"	1
S212	1/4"	1/4"	2 3/4"	3/4"	1
S213	5/16"	5/16"	2 3/4"	3/4"	1
S214	3/8"	Double Feed Cap	4 1/2"	5/8"	2
S215	3/8"	Triple Feed Cap	4 1/2"	5/8"	3
S216	3/8"	3/8"	4 1/2"	5/8"	1
S217	1/4"	.098 CAP	4 1/2"	5/8"	1
S218	3/8"	.125 CAP	4 1/2"	5/8"	1
S219	3/8"	.146 CAP	5"	7/8"	4
S220	3/8"	.112 CAP	4 1/2"	7/8"	6

Solder Connection Driers

PART NO.	DESCRIPTION	INLET	OUTLET	DROPS OF WATER REMOVED R-12 75°	R-12 125°	R-22 75°	R-22 125°	RECOMMENDED TONNAGE R-12	R-22
MD-5	1" Drier (No Tubes)	1/4"	CAP	37.5	34	34	32	1/3	1/2
MD-6	1" Drier (No Tubes)	3/8"	CAP	37.5	34	34	32	1/3	1/2
MD-7	1" Drier (No Tubes)	1/4"	1/4"	37.5	34	34	32	1/3	1/2

CSLD Series / Compact Suction Line Driers

Features

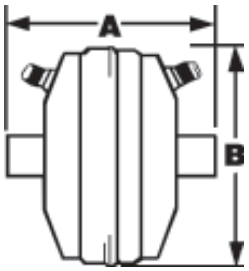
- Dual access valves
- High acid removal
- Solid copper fittings (available in solder only)
- Corrosion resistant epoxy powder paint finish

Applications

- The CSLD has a compact 14 cubic inch solid block desiccant core, designed when limited space is available.
- Compact suction line filter drier for moisture, acid and contaminant removal.
- For use with CFC, HCFC and HFC refrigerants.

Specifications

- Maximum working pressure (MWP): 500 PSIG
- Filtration: 40 microns



Nomenclature

Example: CSLD14S5

CSLD	14	S	5
Series	Unit Size Cubic Inches	S = ODF Connection	Connection Size (in 1/8)

CSLD DESC.	CONNECTIONS	DIMENSION in Inches A	B	FLOW CAPACITY IN TONS REFRIGERANT (1) (FOR KW MULTIPLY TONS BY 3.5 (2)) R-12 EVAPORATOR TEMPERATURE (F) 40	20	0	-20	R-134a 40	20	0	-20	R-22 40	20	0	-20	-40	R-407C 40	20	0	-20	-40	R-410A 40	20	0	-20	-40
				PRESSURE DROP (PSI) 2	1.5	1	0.5	2	1.5	1	0.5	3	2	1.5	1	0.5	3	2	1.5	1	0.5	3	2	1.5	1	0.5
CSLD14S4	1/2 ODF	4 7/32	4 9/16	1.3	0.9	0.5	0.3	1.3	0.9	0.5	0.3	2	1.3	0.9	0.6	0.3	2.2	1.5	1.1	0.7	0.4	1.4	0.9	0.6	0.4	0.2
CSLD14S5	5/8 ODF	4 1/2	4 9/16	2.2	1.5	0.9	0.6	2.3	1.5	0.9	0.5	3.6	2.4	1.6	1	0.5	4	2.8	1.9	1.2	0.7	2.5	1.6	1.1	0.7	0.3
CSLD14S6	3/4 ODF	4 3/8	4 9/16	3	2.1	13.7	0.8	3.1	2.1	13	0.7	4.9	3.2	2.2	1.4	0.7	5.5	3.7	2.7	1.7	0.9	3.3	2.2	1.5	0.9	0.5
CSLD14S7	7/8 ODF	4 9/16	4 9/16	3.2	2.2	1.5	0.8	3.3	2.2	1.4	0.7	5.2	3.4	2.3	1.5	0.8	5.8	3.9	2.8	1.9	1.1	3.6	2.3	1.6	1	0.5
CSLD14S9	1 1/8 ODF	4 27/32	4 9/16	4.4	3.1	1.9	1.1	4.5	3	1.8	1	7	4.6	3.1	2	1	7.8	5.3	3.7	2.5	1.3	4.8	3.2	2.1	1.3	0.7

(1) All ratings in accordance with ARI Standard 730-86

(2) For 2 PSI P, Multiply values by 1.4
Example: 1.0 tons x 3.5 = 3.5 kW

CSLD DESCRIPTION	CONNECTIONS	FLOW CAPACITY IN TONS REFRIGERANT (FOR KW, MULTIPLY TONS BY 3.5) R-502 EVAPORATOR TEMPERATURE (F) 40	20	0	-20	-40	R-404A/507 40	20	0	-20	-40
		PRESSURE DROP (PSI) 3	2	1.5	1	0.5	3	2	1.5	1	0.5
CSLD14S4	1/2 ODF	1.3	0.8	0.5	0.3	0.2	1.3	0.8	0.5	0.3	0.2
CSLD14S5	5/8 ODF	2.7	1.7	1.1	0.7	0.3	2.6	1.7	1.1	0.7	0.3
CSLD14S6	3/4 ODF	3.7	2.3	1.5	0.9	0.5	3.6	2.3	1.5	0.9	0.5
CSLD14S7	7/8 ODF	4	2.4	1.6	1	0.5	3.9	2.4	1.6	1	0.5
CSLD14S9	1 1/8 ODF	5.1	3.1	2	1.3	0.7	4.9	3.1	2	1.3	0.7

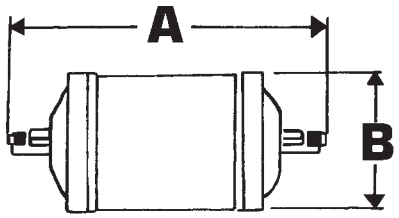
Driers

LLD Series / Liquid Line Driers

Features
- Solid copper fittings
- Shock resistant steel construction
- High acid and moisture removal
- Corrosion resistant epoxy powder paint finish

Specifications
- Desiccant Blend: Activated Alumina with Molecular Sieve
- Filtration: 40 microns
- Maximum working pressure (MWP): Sizes 03 – 016 600 psig / Sizes 30 – 75 cubic inch 500 psig

Applications
Solid core liquid line filter drier
ideal for use with CFC,
HCFC and HFC refrigerants (R410A through 16" size only).
- Refrigeration compressors
- Air Conditioning compressors
- Heat Pump compressors



Nomenclature
Example: LLD083S

LLD	08	3	S
Series	Unit Size Cubic Inches	Connection Size (in 1/8)	S = ODF Connection (Omit for SAE)

LLD CAPACITY TABLES

LLD	Connection	Dimensions in Inches		FLOW CAPACITY TONS @ 1 psi △P (1)(4) (FOR KW, MULTIPLY TONS BY 3.5)							WATER CAPACITY / DROPS OF WATER													
									R-404A		R-12		R-134a		R-22		R-407C		R-410A		R-404/507		R-502	
DESC.	Type & Size	A	B	R-12	R-134a	R-22	R-410AC	R-407C	/507	R- 502	75°F	125°F	75°F	125°F	75°F	125°F	75°F	125°F	75°F	125°F	75°F	125°F	75°F	125°F
LLD032	1/4 SAE	4 5/16	1 5/8	1.6	1.9	2.1	2.1	2	1.4	1.3	64	46	44	37	34	31	31	21	27	17	47	37	43	34
LLD032S	1/4 ODF	3 3/4	1 5/8	1.9	2.3	2.5	2.5	2.4	1.7	1.6														
LLD052	1/4 SAE	4 7/8	2 1/2	1.6	2	2.2	2.2	2.1	1.4	1.4														
LLD052S	1/4 ODF	4 11/32	2 1/2	2.4	2.9	3.1	3.1	3.1	2.1	2	130	81	68	50	58	38	47	26	44	23	73	48	73	49
LLD053	3/8 SAE	5 3/16	2 1/2	3	3.7	4	4	3.9	2.7	2.6														
LLD053S	3/8 ODF	4 17/32	2 1/2	3.7	4.5	4.9	4.9	4.8	3.3	3.2														
LLD082	1/4 SAE	5 13/16	2 1/2	1.6	2	2.2	2.2	2.1	1.4	1.4														
LLD082S	1/4 ODF	5 1/4	2 1/2	2.5	3.1	3.4	3.4	3.3	2.2	2.2														
LLD083	3/8 SAE	6 3/32	2 1/2	3.5	4.3	4.7	4.7	4.6	3.1	3	188	117	101	76	87	57	68	39	63	34	109	73	105	71
LLD083S	3/8 ODF	5 7/16	2 1/2	3.4	4.2	4.6	4.6	4.5	3	3														
LLD084	1/2 SAE	6 11/32	2 1/2	5.5	6.7	7.3	7.3	7.1	4.9	4.7														
LLD084S	1/2 ODF	5 1/2	2 1/2	5.7	7	7.6	7.6	7.4	5.1	4.9														
LLD162	1/4 SAE	6 19/32	2 1/2	1.6	2	2.2	2.2	2.1	1.4	1.4														
LLD163	1/4 SAE	6 7/8	2 1/2	3.6	4.4	4.8	4.8	4.7	3.2	3.1														
LLD163S	1/4 ODF	6 7/32	2 1/2	4	4.9	5.3	5.3	5.2	3.6	3.5														
LLD164	1/2 SAE	7 1/8	2 1/2	6.8	8.3	9	9	8.8	6	5.8	295	204	169	140	151	117	134	86	115	67	180	143	193	145
LLD164S	1/2 ODF	6 9/32	2 1/2	7.1	8.6	9.3	9.3	9.1	6.2	6.1														
LLD165	5/8 SAE	7 1/2	2 1/2	9.7	11.8	12.8	12.8	12.5	8.6	8.3														
LLD165S	5/8 ODF	6 17/32	2 1/2	10.7	13.1	14.2	14.2	13.9	9.5	9.2														
LLD303	3/8 SAE	9 9/16	3	3.9	4.7	5.1		5	3.4	3.3														
LLD303S	3/8 ODF	8 29/32	3																					
LLD304	1/2 SAE	9 13/16	3	7.1	8.6	9.3		9.1	6.2	6.1														
LLD304S	1/2 ODF	8 15/16	3	7.2	8.8	9.5		9.4	6.4	6.2														
LLD305	5/8 SAE	10 3/16	3	11.3	13.8	15		14.7	10	9.7	615	444	359	278	314	218	309	212			385	272	427	335
LLD305S	5/8 ODF	9 7/32	3	11.9	14.5	15.7		15.4	10.5	10.2														
LLD306S	3/4 ODF	9 5/8	3	13	15.8	17.1		16.8	11.5	11.1														
LLD307S	7/8 ODF	9 13/16	3	14.3	17.4	18.9		18.5	12.6	12.3														
LLD309S	1 1/8 ODF	9 13/16	3	20.4	24.9	27		26.5	18	17.5														

(1) All ratings in accordance with ARI Standard 710-86.
86° F liquid refrigerant temperature
5°F saturated vapor temperature
3.1 lbs./min./ton for R-134a
2.9 lbs./min./ton for R-22 and R-407C
4.0 lbs./min./ton for R-404A/507 and R-12
4.4 lbs./min./ton for R-502
2.7 lbs./min./ton for R-410A

(2) Water Capacities are based on:
Equilibrium Point Dryness (EPD) of:
50 parts per million for R-134a, R404-A/507, R-410A and R-407C
60 parts per million for R-22
30 parts per million for R-502
15 parts per million for R-12

(3) 20 drops of water = 1 gram = 1 cc

(4) For 2 PSI D P, Multiply values by 1.4

LLD LIQUID REFRIGERANT HOLDING CAPACITY - OUNCES

UNIT	R-12		R-134a		R-22		R407C		R-410A		R-404A/507		R-502	
SIZE	75°F	125°F	75°F	125°F	75°F	125°F	75°F	125°F	75°F	125°F	75°F	125°F	75°F	125°F
03	2.4	2.2	2.2	2	2.2	2	2.1	1.9	2	1.7	1.9	1.7	2.2	2
05	5.9	6	5.5	5.5	5.4	5.4	5.2	5	4.8	4.5	4.7	4.5	5.5	5.4
08	8	7.4	7.4	6.7	7.3	6.6	7	6.2	6.5	5.5	6.4	5.5	7.5	6.6
16	14.5	12.5	13.4	11.4	13.2	11.2	12.6	10.4	11.7	9.4	11.6	9.3	13.5	11.2
30	21.8	19.9	20.1	18.1	19.8	17.8	18.9	16.6			17.4	14.7	20.2	17.7
41	29.3	26.8	26.9	24.4	26.6	23.9	25.4	22.3			23.3	19.7	27.2	23.8
75	52.8	48.3	48.6	43.9	48	43.1	45.8	40.2			42.1	35.6	49.1	43

R-410A The LLD filter-drier is UL listed for 600 PSIG maximum working pressure for all sizes through 16 cubic inches.

LLD LIQUID LINE FILTER DRIERS

FILTER	REFRIGERATION, LOW TEMP. & COMMERCIAL INSTALLATIONS			AIR CONDITIONING			
				FIELD REPLACEMENT & FIELD INSTALLATIONS		OEM SELF CONTAINED EQUIPMENT	
DRIER	R-12/134a	R-22/407C/410A	R-404A/507A	R-12/134a	R-22/407C/410A	R-12/134a	R-22/407C
032,032S,033,033S	1/4	1/4	1/4	1/2	3/4	3/4	1
052,052S	1/3	1/3	1/3	3/4	1	1	1 1/2
053,053S	1 1/2	2	2	3			
082,082S	1/2	1/2	1/2	3/4	1 1/2	1	2
0825S	1	1	1	2	3	3	4
083,083S	1	1	1	2	3	3	4
084,084S	1.5	2	1	3	5	4	7
162,162S	1	1 1/2	3/4	1	2	2	2 1/2
1625S	2	2 1/2	2	3	4	4	5
163,163S	2	4	2	4	6	5	7 1/2
164,164S	2	4	2	4	6	5	7 1/2
165,165S	3	5	2 1/2	5	7 1/2	7 1/2	10
303,303S	3	3	2	3	4 1/2	4	5
304,304S	3	5	3	5	7 1/2	7 1/2	9
305,305S	5	7 1/2	5	8	10	10	14
306S	7 1/2	7 1/2	5	7 1/2	12 1/2	15	20
307S	7 1/2	7 1/2	5	7 1/2	12 1/2	15	20
309S	7 1/2	10	7 1/2	10	12 1/2	15	20

SSLD Series / Suction Line Filter Driers

Features

- Dual access valves
- Solid copper fittings
- Corrosion resistant epoxy powder paint finish

Applications

- To protect the compressor from dirt and all solid contaminants.

Specifications

- Filtration: 40 microns
- Maximum working pressure (MWP): 500 psig

Nomenclature

Example: SSLD167S

SSLD	16	7	S
Series	Unit Size Cubic Inch	Connection Size (in 1/8)	S = ODF Connection (omit for SAE)

SSLD Dimensions Diagram

Flow Capacities in Refrigerant Tons at Selected Evaporator Temperatures

Filter-Drier	Connections Size & Type	Dimension in Inches A	Dimension in Inches B	+40°F	+20°F	0°F	-20°F	+40°F	+20°F	0°F	-20°F	-40°F	+40°F	+20°F	0°F	-20°F	-40°F
				R-134a				R-22					R410A				
				Pressure Drop in psi													
				2	1.5	1	0.5	3	2	1.5	1	0.5	3	2	1.5	1	0.5
SSLD83	3/8 SAE	6 3/32	2 1/2	0.6	0.4	0.2	0.1	0.9	0.6	0.4	0.3	0.1	1.1	0.8	0.5	0.4	0.1
SSLD83S	3/8 ODF	5 7/16	2 1/2	0.8	0.5	0.3	0.2	1.3	0.8	0.6	0.4	0.2	1.6	1	0.8	0.5	0.3
SSLD84	1/2 SAE	6 11/32	2 1/2	1.4	0.9	0.6	0.3	2.2	1.4	1	0.6	0.3	2.7	1.8	1.3	0.8	0.4
SSLD84S	1/2 ODF	5 1/2	2 1/2	1.7	1.2	0.7	0.4	2.7	1.8	1.2	0.8	0.4	3.4	2.3	1.6	1.1	0.5
SSLD85	5/8 SAE	6 3/16	2 1/2	2.2	1.5	0.9	0.5	3.4	2.2	1.5	1	0.5	4.2	2.8	2	1.3	0.7
SSLD85S	5/8 ODF	5 3/4	2 1/2	2.4	1.6	1	0.5	3.8	2.5	1.7	1.1	0.6	4.7	3.2	2.3	1.5	0.8
SSLD164	1/2 SAE	7 1/8	2 1/2	1.5	1	0.6	0.3	2.3	1.5	1	0.7	0.4	2.9	1.9	1.3	0.9	0.5
SSLD164S	1/2 ODF	6 1/4	2 1/2	1.7	1.2	0.7	0.4	2.7	1.8	1.2	0.8	0.4	3.4	2.3	1.6	1.1	0.5
SSLD165	5/8 SAE	7 1/2	2 1/2	2.1	1.4	0.9	0.4	3.2	2.1	1.4	0.9	0.5	4	2.7	1.9	1.2	0.7
SSLD165S	5/8 ODF	6 9/16	2 1/2	2.2	1.5	0.9	0.5	3.4	2.2	1.5	1	0.5	4.2	2.8	2	1.3	0.7
SSLD166	3/4 SAE	6 31/32	2 1/2	2.6	1.8	1.1	0.6	4.1	2.7	1.8	1.2	0.6					
SSLD166S	3/4 ODF	6 31/32	2 1/2	2.6	1.8	1.1	0.6	4.1	2.7	1.8	1.2	0.6	5.1	3.4	2.4	1.6	0.8
SSLD167S	7/8 ODF	7 1/8	2 1/2	2.7	1.8	1.1	0.6	4.6	2.8	1.9	1.1	0.6					
SSLD305	5/8 SAE	10 3/16	3	3	2	1.2	0.6	4.7	3.1	2.1	1.3	0.7	5.8	3.9	2.8	1.7	0.9
SSLD305S	5/8 ODF	9 7/32	3	2.8	1.8	1.1	0.6	4.3	2.8	1.9	1.2	0.6	5.3	3.6	2.5	1.6	0.8
SSLD306S	3/4 ODF	9 5/8	3	3.4	2.3	1.4	0.7	5.4	3.5	2.4	1.5	0.8	6.7	4.5	3.2	2	1.1
SSLD307S	7/8 SAE	9 25/32	3	3.8	2.5	1.6	0.8	5.9	3.9	2.6	1.7	0.9	7.3	5	3.5	2.3	1.2
SSLD309S	1-1/8 SAE	9 25/32	3	3.9	2.6	1.6	0.8	6.1	4	2.7	1.7	0.9	7.6	5.1	3.6	2.3	1.2
SSLD417S													9.4	6.2	4.5	2.8	1.5
SSLD419S	1 1/8 ODF	9 15/16	3 1/2	5.4	3.6	2.2	1.2	8.5	5.5	3.8	2.4	1.3	10.6	7	5.1	3.2	1.8

Driers

Flow Capacity Chart

FILTER DRIER	Connections Size & Type	Dimension in Inches A	B	+40°F R407C 3	+20°F R407C 2	0°F R407C 1.5	-20°F R407C 1	-40°F R407C 0.5	+40°F R-502/R404A/R507 3	+20°F R-502/R404A/R507 2	0°F R-502/R404A/R507 1.5	-20°F R-502/R404A/R507 1	-40°F R-502/R404A/R507 0.5
				Pressure Drop in psi									
SSLD83	3/8 SAE	6 3/32	2 1/2	1	0.6	0.4	0.3	0.1	0.7	0.5	0.3	0.2	0.1
SSLD83S	3/8 ODF	5 7/16	2 1/2	1.4	0.9	0.6	0.4	0.2	1	0.7	0.5	0.3	0.1
SSLD84	1/2 SAE	6 11/32	2 1/2	2.3	1.5	1.1	0.6	0.3	1.8	1.1	0.8	0.5	0.3
SSLD84S	1/2 ODF	5 1/2	2 1/2	2.9	1.9	1.3	0.8	0.4	2.2	1.4	1	0.6	0.3
SSLD85	5/8 SAE	6 3/16	2 1/2	3.6	2.3	1.6	1	0.5	2.8	1.8	1.2	0.8	0.4
SSLD85S	5/8 ODF	5 3/4	2 1/2	4.1	2.7	1.8	1.2	0.6	3.1	2	1.3	0.8	0.4
SSLD164	1/2 SAE	7 1/8	2 1/2	2.5	1.6	1.1	0.7	0.4	1.9	1.2	0.8	0.5	0.3
SSLD164S	1/2 ODF	6 1/4	2 1/2	2.9	1.9	1.3	0.8	0.4	2.2	1.4	1	0.6	0.3
SSLD165	5/8 SAE	7 1/2	2 1/2	3.4	2.2	1.5	0.9	0.5	2.7	1.7	1.2	0.7	0.4
SSLD165S	5/8 ODF	6 9/16	2 1/2	3.6	2.3	1.6	1	0.5	2.8	1.8	1.2	0.8	0.4
SSLD166	3/4 SAE	6 31/32	2 1/2						3.4	2.2	1.5	0.9	0.5
SSLD166S	3/4 ODF	6 31/32	2 1/2	4.4	2.9	1.9	1.3	0.6	3.4	2.2	1.5	0.9	0.5
SSLD167S	7/8 ODF	7 1/8	2 1/2						4.3	2.6	1.7	1	0.6
SSLD305	5/8 SAE	10 3/16	3	5	3.3	2.2	1.4	0.7	3.8	2.5	1.7	1	0.5
SSLD305S	5/8 ODF	9 7/32	3	4.6	3	2	1.3	0.6	3.6	2.3	1.5	1	0.5
SSLD306S	3/4 ODF	9 5/8	3	5.8	3.7	2.5	1.6	0.8	4.4	2.8	1.9	1.2	0.6
SSLD307S	7/8 SAE	9 25/32	3	6.3	4.1	2.7	1.8	0.9	4.9	3.1	2.1	1.3	0.7
SSLD309S	1-1/8 SAE	9 25/32	3	6.5	4.3	2.9	1.8	0.9	5	3.2	2.2	1.3	0.7
SSLD419S	1 1/8 ODF	9 15/16	3 1/2	9.1	5.9	4	2.5	1.3	6.9	4.5	3	1.9	1

All ratings in accordance with ARI standard 710-86

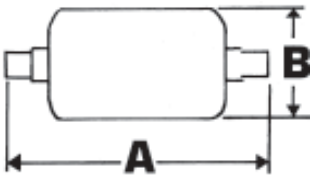
HP Series/Liquid Line Bi-Directional Heat Pump Driers

Features

- 16 cubic inch drier in a 2 1/2" diameter shell
- Internal check valves allow flow and filtration in either direction.
- High moisture and acid removal
- Corrosion resistant epoxy powder paint finish
- Copeland approved for POE oils

Specifications

- Desiccant blend: 75% molecular sieve and 25% activated alumina (Bead).
- Filtration: 40 microns
- Maximum working pressure (MWP): Sizes 05 – 16



Applications

- Bi directional liquid line filter driers for heat pump applications using CFC, HCFC and HFC refrigerants.

Nomenclature

Example: HP165S

HP	16	5	S
Series	Unit Size Cubic Inches (in 1/8)	Connection Size (Omit for SAE)	S = ODF Connection

HP CAPACITY TABLES

PART No.	CONNECTIONS SIZE AND TYPE	DIMENSIONS A	B	FLOW CAPACITY TONS @ 1 PSI Δ P(1)(4) (FOR kW, MULTIPLY TONS BY 3.5) R-22	R-410A	R-407C	WATER CAPACITY TONS (2) DROPS OF WATER (3) R-22 75°F	R-22 125°F	R-407C 75°F	R-407C 125°F	R-410A 75°F	R-410A 125°F
HP083	3/8 SAE	6.28	2.63	4.5	4.5	4.4						
HP083S	3/8 ODF	5.63	2.63	5.1	5.1	5						
HP084	1/2 SAE	6.53	2.63	6.4	6.4	6.3	159	144	106	79	85	75
HP84S	1/2 ODF	5.66	2.63	6.7	6.7	6.6						
HP085	5/8 SAE	6.91	2.63	7.8	7.8	7.7						
HP085S	5/8 ODF	5.84	2.63	8.1	8.1	7.9						
HP163	3/8 SAE	6.97	2.63	4.6	4.6	4.5						
HP163S	3/8 ODF	6.31	2.63	5.2	5.2	5.1						
HP164	1/2 SAE	7.22	2.63	7.7	7.7	7.6	323	294	237	179	178	160
HP164S	1/2 ODF	6.34	2.63	8.1	8.1	7.9						
HP165	5/8 SAE	7.59	3.09	8.3	8.3	8.1						
HP165S	5/8 ODF	6.63	2.63	8.7	8.7	8.5						

(1) All ratings in accordance with ARI Standard 710-86.
86°F liquid refrigerant temperature.
5°F saturated vapor temperature
3.1 lbs./min./ton for R-134a
2.9 lbs./min./ton for R-22 and R-407C
4.0 lbs. min./ton for R-404A/507 and R-12
4.4 lbs./min./ton for R-502
2.7 lbs./min./ton for R-410A

(2) Water Capacities are based on: Equilibrium Point Dryness (EPD) of:
50 parts per million for R-134a, R404-A/507, R-410A and R-407C
60 parts per million for R-22
15 parts per million for R-12
30 parts per million for R-502
(3) 20 drops of water = 1 gram = 1 cc
(4) For 2 PSI D P, Multiply values by 1.4

HP CAPACITY TABLES

UNIT SIZE	FLOW CAPACITY - TONS @ 1 PSI R-22/R-410A	R-407C	LIQUID REFRIGERANT HOLDING CAPACITY - Oz. R-22R 75°F	R-22R 125°F	R-407 75°F	R-407 125°F	R-410A 75°F	R-410A 125°F	WATER HOLDING CAPACITY DROPS R-22 75°F	R-22 125°F	R-407C 75°F	R-407C 125°F	R-410A 75°F	R-410A 125°F
163S	5.2	5.1												
164	6.6	6.5												
164S	7.4	7.3	10.1	9.1	9.6	8.5	9	7.6	161	141	125	87	91	55
165	8	7.8												
165S	8.3	8.1												

HERMETIC LIQUID LINE HP FILTER DRIERS

UNIT SIZE	REFRIGERATION, LOW TEMP. & COMMERCIAL INSTALLATIONS			AIR CONDITIONING FIELD REPLACEMENT & FIELD INSTALLATIONS		AIR CONDITIONING OEM: SELF CONTAINED EQUIPMENT	
	R-12/134a	R-22/407C/410A	R-404A/134A	R-12/134a	R-22/407C/410A	R-12/13a	R-22/407C
083, 083S	1	1	1	2	3	3	4
084, 084S	1.5	2	1	3	5	4	7
162, 162S	1	1.5	3/4	1	2	2	2 1/2
163, 163S	2	4	2	4	6	5	7 1/2
164, 164S	2	4	2	4	6	5	7 1/2
165, 165S	3	5	2 1/2	5	7 1/2	7 1/2	10

LIQUID REFRIGERANT HOLDING CAPACITY - OUNCES

UNIT SIZE	R-22		R-407C		R-410A	
	75°F	125°F	75°F	125°F	75°F	125°F
05	4.6	4.2	4.4	3.9	4.1	3.5
08	7.7	6.9	7.3	6.4	6.9	5.8
16	14.2	12.7	13.5	11.8	12.6	10.6
30	21.0	18.7	20.0	17.4	–	–

R-410A The HP filter-drier is UL listed for 600 PSIG maximum working pressure for all sizes through 16 cubic inches.

SSG Series / Moisture Indicators

Features

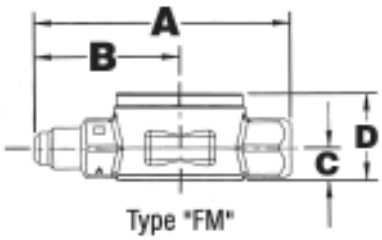
- Fully hermetic design
- 3% relative humidity indication compared to 10% paper indicators.
- Single indicator for all common refrigerants
- Accurate color calibration at low ppm levels and higher temperatures.
- Tri Color Coded
  - Blue = Dry optimal operation conditions, - Purple = Low levels of moisture indicated,
  - Pink = High levels of moisture detected
- Wide angle viewing / high visibility window for ease of monitoring.
- All brass corrosion resistant body
- Solid copper fittings

Applications

- SUPCO's SSG was designed to provide an accurate method of determining the moisture content of a system's refrigerant.
- Unique 3% high accuracy moisture indicator for CFC, HCFC and HFC refrigerants, including R410A.

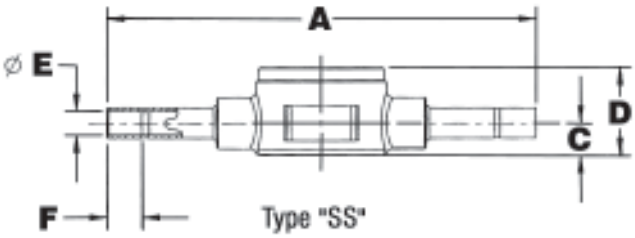
Specifications

- 3% relative humidity sensitivity
- Maximum working pressure (MWP): 680 psig



Type "FM"
Female Flare X Male Flare

PART NO.	CONNECTION SIZE	A	B	C	D	E	F
SSGFM2	1/4 SAE	2.75 ± .03	1.19 ± .03	.34 ± .06	.937 ± .06		
SSGFM3	3/8 SAE	3.00 ± .03	1.31 ± .03	.47 ± .06	1.187 ± .06		
SSGFM4	1/2 SAE	3.22 ± .03	1.41 ± .03	.47 ± .06	1.187 ± .06		
SSGSS2	1/4 ODF	4.62 ± .10		.34 ± .06	.937 ± .06	.254 ± .002	.375
SSGSS3	3/8 ODF	4.62 ± .10		.34 ± .06	.937 ± .06	.379 ± .002	.402
SSGSS4	1/2 ODF	4.87 ± .10		.47 ± .06	1.187 ± .06	.504 ± .003	.500
SSGSS5	5/8 ODF	4.87 ± .10		.47 ± .06	1.187 ± .06	.629 ± .003	.625
SSGSS7	7/8 ODF	6.31 ± .10		.61 ± .06	1.500 ± .06	.879 ± .003	.750



Type "SS"
Tube Stub X Tube Stub

Nomenclature

Example: SSGSS3

SSG	S	3
Supco Sight Glass	Connection style Solder x Solder	Connection size (in 1/8)

Driers

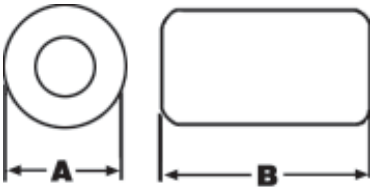
RCT Series/Interchangeable Replaceable Cores

Features

- Water capacities to suit specific system conditions (RCHC48).
- Exceptional acid capabilities for normal system protection, or to effectively clean up following a compressor burnout (RCT48).
- Wax removal capabilities for complete clean up following a compressor burnout (RCHC48).

Applications

- Universal replacement cores for use in all take apart type filter drier shells.



Nomenclature

Example: RCT48

RCT	48
Series	Cubic Inches

DRIER CORE	CORE DESC.	RECOMMENDED REFRIGERANT TYPE	FUNCTION	DIMENSION A	DIMENSION B	WATER CAPACITY (1)/DROPS OF WATER (2) R-12 75°F	R-12 125°F	R-134a 75°F	R-134a 125°F	R-22 75°F	R-22 125°F	R-407C 75°F	R-407C 125°F	R-404A/507 75°F	R-404A/507 125°F	R-502 75°F	R-502 125°F
RCT-48	Standard	CFC,HCFC	High Acid Removal	3.66	5.5	810	453	415	340	363	254	225	95	457	343	388	225
RCH-48	High Capacity	CFC,HCFC	High Acid and Water Removal	3.66	5.5	1020	688	676	538	597	436	445	285	721	535	643	475
RCHC-48	Burnout	CFC,HCFC,HFC	Burnout Cleanup	3.66	5.5	772	488	387	294	335	226	290	165	417	289	444	306

(2) 20 drops of water = 1 gram = 1 cc
(1) Water Capacities are based on:
Equilibrium Point Dryness (EPD) of:
50 Parts per million for R-134a, R404-A/507 and R-407C
60 Parts per million for R-22
15 Parts per million for R-12
30 Parts per million for R-502

Cap Tubing

BC Series Bullet®Restricto Cap Tubing

Fits **ANY** domestic and commercial refrigerator or room air conditioner from 1/8 H.P. to 5 H.P.

Our Soft Copper Capillary Tubing is precision plug drawn with the internal diameter held to a tolerance of +/- .001. It has been thoroughly dehydrated, sealed and individually packaged.

Features

- Precision Bore, Plus or Minus .001
- The Bullet Restricto Cap is consolidated into a five-pak replacement kit. It's guaranteed to provide you with uniformity on all applications.
- The five "Restricto Cap" sizes cover hundreds of applications (see chart below).

PART NO.	SIZE	LENGTH
BC1	.081 O.D. x .031 I.D.	10 FT. COIL
BC2	.093 O.D. x .040 I.D.	12 FT. COIL
BC3	.093 O.D. x .052 I.D.	12 FT. COIL
BC4	.125 O.D. x .064 I.D	12 FT. COIL
BC5	.071 O.D. x .028 I.D.	10 FT. COIL
BC1-100	.081 O.D. x .031 I.D.	100 FT. COIL
BC2-100	.093 O.D. x .040 I.D.	100 FT. COIL
BC3-100	.093 O.D. x .052 I.D.	100 FT. COIL
BC4-100	.125 O.D. x .064 I.D.	100 FT. COIL
BC5-100	.071 O.D. x .028 I.D.	100 FT. COIL
5 PAK	Five pack replacement kit.	

Reference chart for Bullet® "Restricto" Capillary Tubing for All Refrigerants in Low, Medium and High Applications

NOTE: This chart is average measurements for average conditions, and may have to be "fine tuned" for exact replacement. These charts are for Fan Cooled units only. Add 10% to the length of the cap tubing for Static Cooled Units.

NOTE: **Application Temperatures are Saturated Suction Temperatures (SST).**

SINGLE FEED

REF	HP	-10 LOW	+20 MED	+45 HIGH
R12/R416A	1/8 HP	110" # 5	84" # 5	48" # 5
	1/6 HP	71" # 5	96" # 1	72" # 1
	1/5 HP	54" # 1	36" # 1	24" # 1
	1/4 HP	43" # 1	90" # 2	60" # 2
	1/3 HP	93" # 2	72" # 2	36" # 2
	1/2 HP	96" # 3	48" # 3	90" # 4
	3/4 HP	60" # 3	92" # 4	72" # 4
	1 HP	36" # 3	84" # 4	54" # 4
	1-1/2 HP	84" # 4	60" # 4	43" # 4
	2 HP	55" # 4	40" # 4	26" # 4

REF	HP	-10 LOW	+20 MED	+45 HIGH
R134A / R401A	1/8 HP	121" # 5	92" #5	53" # 5
R401B/R406A	1/6 HP	78" # 5	106" #1	79" # 1
R409A/R500	1/5 HP	59" # 1	39" #1	26" # 1
	1/4 HP	47" # 1	99" #2	66" # 2
	1/3 HP	102" # 2	79" #2	39" # 2
	1/2 HP	105" # 3	52" # 3	99" # 4
	3/4 HP	66" # 3	101" #4	79" # 4
	1 HP	39" # 3	92" #4	59" # 4
	1-1/2 HP	92" # 4	66" #4	47" # 4
	2 HP	61" # 4	44" #4	29" # 4

NOTE: For Multiple Feeds with smaller HP's than those shown in the charts.

- Divide HP by number of feeds, go to Single Feed Chart, select a cap tube for the calculated HP and use that selection for each feed.
- Ex: 1 HP, LOW, R12 5 FEED USE: 1/5 HP, LOW, R12, SINGLE FEED CHART
- RESULT: 5 Feeds, 54" BC1

Cap Tubing

SINGLE FEED

REF	HP	-10 LOW	+20 MED	+45 HIGH
R22	1/8 HP	132" #5	101" #5	58" #5
	1/6 HP	86" #5	116" #1	86" #1
	1/5 HP	64" #1	42" #1	28" #1
	1/4 HP	51" #1	109" #2	72" #2
	1/3 HP	112" #2	87" #2	43" #2
	1/2 HP	115" #3	57" #3	109" #4
	3/4 HP	72" #3	111" #4	87" #4
	1 HP	42" #3	101" #4	65" #4
	1-1/2 HP	101" #4	72" #4	51" #4
	2 HP	67" #4	48" #4	32" #4
R402A/R407A	1/8 HP	N/A	122" #5	69" #5
R407B/R507	1/6 HP	104" # 5	138" #1	105" #1
	1/5 HP	77" # 1	50" #1	34" #1
	1/4 HP	62" # 1	34" #1	86" #2
	1/3 HP	33" # 1	106" #2	52" #2
	1/2 HP	31" # 2	69" #3	35" #3
	3/4 HP	87" # 3	37" #3	106" #4
	1 HP	52" # 3	30" #3	79" #4
	1-1/2 HP	32" # 3	86" #4	62" #4
	2 HP	82" # 4	58" #4	37" #4

REF	HP	-10 LOW	+20 MED	+45 HIGH
R402B/R403B	1/8 HP	144" #5	111" #5	63" #5
R404A/R407C	1/6 HP	95" #5	78" #5	95" #1
R408A/R502	1/5 HP	70" #1	46" #1	31" #1
	1/4 HP	56" #1	31" #1	79" #2
	1/3 HP	122" #2	96" #2	47" #2
	1/2 HP	29" #2	63" #3	32" #3
	3/4 HP	79" #3	32" #3	96" #4
	1 HP	46" #3	111" #4	72" #4
	1-1/2 HP	111" #4	79" #4	56" #4
	2 HP	74" #4	52" #4	34" #4
R410A	1/8 HP	N/A	144" #5	81" #5
	1/6 HP	123" #5	100" #5	78" #5
	1/5 HP	90" #1	60" #1	41" #1
	1/4 HP	73" #1	40" #1	101" #2
	1/3 HP	38" #1	30" #1	62" #2
	1/2 HP	37" #2	84" #3	42" #3
	3/4 HP	104" #3	44" #3	34" #3
	1HP	62" #3	36" #3	94" #4
	1-1/2 HP	38" #3	103" #4	74" #4
	2 HP	96" #4	69" #4	45" #4

DOUBLE FEED

(All double feed caps tubes require **2 lengths of each** size listed below.)

REF	HP	-10 LOW	+20 MED	+45 HIGH
R12/R416A	1/2 HP	43" #1	90" #2	60" #2
	3/4 HP	30" #1	63" #2	42" #2
	1 HP	96" #3	48" #3	90" #4
	1 1/2 HP	60" #3	92" #4	72" #4
	2 HP	36" #3	84" #4	54" #4
	2 1/2 HP	108" #4	72" #4	49" #4
	3 HP	84" #4	60" #4	43" #4
	3 1/2 HP	70" #4	54" #4	35" #4
	4 HP	55" #4	40" #4	26" #4
R134A/R401A	1/2 HP	47" #1	99" #2	66" #2
R401B/R406B	3/4 HP	33" #1	69" #2	46" #2
R409A/R500	1 HP	105" #3	52" #3	99" #4
	1 1/2 HP	66" #3	101" #4	79" #4
	2 HP	40" #3	92" #4	59" #4
	2 1/2 HP	119" #4	79" #4	53" #4
	3 HP	92" #4	66" #4	47" #4
	3 1/2 HP	77" #4	59" #4	38" #4
	4 HP	60" #4	44" #4	29" #4
R22	1/2 HP	52" #1	108" #2	72" #2
	3/4 HP	36" #1	77" #2	50" #2
	1 HP	115" #3	58" #3	108" #4
	1 1/2 HP	72" #3	110" #4	86" #4
	2 HP	43" #3	101" #4	65" #4
	2 1/2 HP	39" #3	87" #4	58" #4
	3 HP	101" #4	72" #4	52" #4
	3 1/2 HP	84" #4	64" #4	41" #4
	4 HP	66" #4	48" #4	31" #4

REF	HP	-10 LOW	+20 MED	+45 HIGH
R402B/R403B	1/2 HP	56" #1	119" #2	78" #2
R404A/R407C	3/4 HP	39" #1	85" #2	55" #2
R408A/R502	1 HP	28" #2	63" #3	119" #4
	1 1/2 HP	79" #3	32" #3	94" #4
	2 HP	47" #3	110" #4	71" #4
	2 1/2 HP	43" #3	96" #4	64" #4
	3 HP	111" #4	79" #4	57" #4
	3 1/2 HP	92" #4	70" #4	46" #4
	4 HP	73" #4	53" #4	34" #4
R402A/R407A	1/2 HP	62" #1	32" #1	85' #2
R407B/R507	3/4 HP	43" #1	92" #2	60" #2
	1 HP	31" #2	70" #3	36" #3
	1 1/2 HP	87" #3	35" #3	103" #4
	2 HP	52" #3	28" #3	78" #4
	2 1/2 HP	47" #3	106" #4	70" #4
	3 HP	32" #3	86" #4	62" #4
	3 1/2 HP	101" #4	77" #4	50" #4
	4 HP	80" #4	58" #4	37" #4
R410A	1/2 HP	72" #1	37" #1	102" #2
	3/4 HP	50" #1	116' #2	70" #2
	1 HP	37" #2	83" #3	42" #3
	1 1/2 HP	102" #3	44" #3	34" #3
	2 HP	62" #3	37" #3	93" #4
	2 1/2 HP	55" #3	32" #3	81" #4
	3 HP	38" #3	101" #4	74" #4
	3 1/2 HP	118" #4	90" #4	55" #4
	4 HP	92" #4	70" #4	41" #4

TRIPLE FEED

(All triple feed cap tubes require **3 lengths of each** size listed below.)

REF	HP	-10 LOW	+20 MED	+45 HIGH
R12/R416A	1 HP	93" #2	72" #2	36" #2
	1 1/2 HP	96" #3	48" #3	90" #4
	2 HP	77" #3	38" #3	72" #4
	3 HP	36" #3	84" #4	54" #4
	4 HP	108" #4	63" #4	41" #4
	5 HP	86" #4	50" #4	32" #4
R134A/R401A	1 HP	102" #2	79" #2	39" #2
R401B/R406A	1 1/2 HP	105" #3	52" #3	99" #4
R409A/R500	2 HP	84" #3	42" #3	79" #4
	3 HP	40" #3	92" #4	59" #4
	4 HP	30" #3	69" #4	45" #4
	5 HP	94" #4	55" #4	35" #4
R22	1 HP	112" #2	86" #2	43" #2
	1 1/2 HP	37" #2	58" #3	108" #4
	2 HP	92" #3	46" #3	86" #4
	3 HP	43" #3	100" #4	65" #4
	4 HP	32" #3	75" #4	49" #4
	5 HP	102" #4	60" #4	39" #4

REF	HP	-10 LOW	+20 MED	+45 HIGH
R402B/R403B	1 HP	30" #1	94" #2	47" #2
R404A/R407C	1 1/2 HP	41" #2	63" #3	32" #3
R408A/R502	2 HP	101" #3	50" #3	95" #4
	3 HP	47" #3	110" #4	71" #4
	4 HP	35" #3	83" #4	53" #4
	5 HP	32" #3	66" #4	43" #4
R402A/R407A	1 HP	33" #1	104" #2	52" #2
4R07B/R507	1 1/2 HP	45" #2	70" #3	35" #3
	2 HP	111" #3	55" #3	104" #4
	3 HP	52" #3	31" #3	78" #4
	4 HP	38" #3	91" #4	58" #4
	5 HP	35" #3	72" #4	47" #4
R410A	1 HP	39" #1	30" #1	62" #2
	1 1/2 HP	54" #2	84" #3	42" #3
	2 HP	27" #2	66" #3	32" #3
	3 HP	62" #3	37" #3	94" #4
	4 HP	46" #3	109" #4	68" #4
	5 HP	42" #3	86" #4	56" #4

Cap Tubing

FOUR FEED (All four feed cap tubes require **4 lengths of each** size listed below.)

REF	HP	-10 LOW	+20 MED	+45 HIGH
R12/R416A	2 HP	96" #3	48" #3	90" #4
	3 HP	60" #3	92" #4	72" #4
	4 HP	36 " #3	84" #4	54" #4
	5 HP	105" #4	67" #4	43" #4
R134A/R401A	2 HP	105" #3	52" #3	99" #4
R401B/R406A	3 HP	66" #3	101" #4	79" #4
R409A/R500	4 HP	40" #3	92" #4	59" #4
	5 HP	32" #3	74" #4	47" #4
R22	2 HP	115" #3	58" #3	108" #4
	3 HP	72" #3	110" #4	86" #4
	4 HP	44" #3	101" #4	65" #4
	5 HP	35" #3	81" #4	52" #4

REF	HP	-10 LOW	+20 MED	+45 HIGH
R402B/R403B	2 HP	29" #2	63" #3	32" #3
R404A/R407C	3 HP	79" #3	32" #3	94" #4
R408A/R502	4 HP	47" #3	111" #4	71" #4
	5 HP	38" #3	89" #4	57" #4
R402A/R407A	2 HP	31" #2	70" #3	35" #3
R407B/R507	3 HP	87" #3	35" #3	103" #4
	4 HP	52" #3	31" #3	78" #4
	5 HP	42" #3	97" #4	63" #4
R410A	2 HP	34" #2	81" #3	41" #3
	3 HP	101" #3	48" #3	32" #3
	4 HP	62" #3	36" #3	92" #4
	5 HP	49" #3	30" #3	74" #4

FIVE FEED (All five feed cap tubes require **5 lengths of each** size listed below.)

REF	HP	-10 LOW	+20 MED	+45 HIGH
R12/R416A	2 HP	115" #3	58" #3	108" #4
	3 HP	81" #3	41" #3	77" #4
	4 HP	57" #3	87" #4	68" #4
	5 HP	36" #3	82" #4	54" #4
R134A/R401A	2 HP	28" #2	62" #3	32" #3
R401B/R406B	3 HP	89" #3	45" #3	84" #4
R409A/R500	4 HP	62" #3	95" #4	74" #4
	5 HP	40" #3	92" #4	59" #4
R22	2 HP	32" #2	70" #3	35" #3
	3 HP	97" #3	49" #3	92" #4
	4 HP	68" #3	103" #4	81" #4
	5 HP	48" #3	98" #4	65" #4

REF	HP	-10 LOW	+20 MED	+45 HIGH
R402B/R403B	2 HP	35" #2	77" #3	38" #3
R404A/R407C	3 HP	108" #3	54" #3	101" #4
R408A/R502	4 HP	74" #3	114" #4	89" #4
	5 HP	53" #3	108" #4	71" #4
R402A/R407A	2 HP	38" #2	84" #3	42" #3
R407B/R507	3 HP	28" #2	59" #3	30" #3
	4 HP	81" #3	35" #3	99" #4
	5 HP	58" #3	31" #3	78" #4
R410A	2 HP	45" #2	98" #3	49" #3
	3 HP	31" #2	69" #3	35" #3
	4 HP	95" #3	40" #3	30" #3
	5 HP	67" #3	36" #3	91" #4

SIX FEED (All six feed cap tubes require **6 lengths of each** size listed below.)

REF	HP	-10 LOW	+20 MED	+45 HIGH
R12/R116A	2 HP	93" #2	72" #2	36" #2
	3 HP	96" #3	48" #3	90" #4
	4 HP	82" #3	41" #3	77" #4
	5 HP	56" #3	86" #4	68" #4
R134A/R401A	2 HP	102" #2	79" #2	39" #2
R401B/R406A	3 HP	105" #3	52" #3	99" #4
R409A/R500	4 HP	90" #3	45" #3	85" #4
	5 HP	62" #3	95" #4	75" #4
R22	2 HP	112" #2	86" #2	43" #2
	3 HP	115" #3	58" #3	108" #4
	4 HP	98" #3	49" #3	92" #4
	5 HP	68" #3	103" #4	81" #4

REF	HP	-10 LOW	+20 MED	+45 HIGH
R402B/R403B	2 HP	30" #1	94" #2	47" #2
R404A/R407C	3 HP	29" #2	63" #3	32" #3
R408A/R502	4 HP	118" #3	53" #3	27" #3
	5 HP	74" #3	30" #3	89" #4
R402A/R407A	2 HP	33" #1	103" #2	52" #2
R407B/R507	3 HP	31" #2	70" #3	35" #3
	4 HP	26" #2	58" #3	30" #3
	5 HP	82" #3	33" #3	98" #4
R410A	2 HP	40" #1	31" #1	62" #2
	3 HP	37" #2	85" #3	42" #3
	4 HP	33" #2	70" #3	36" #3
	5 HP	98" #3	40" #3	32" #3

NOTE: For Multiple Feeds with smaller HP's than those shown in the charts.

- Divide HP by number of feeds, go to Single Feed Chart, select a cap tube for the calculated HP and use that selection for each feed.
- Ex: 1 HP, LOW, R12 5 FEED USE: 1/5 HP, LOW, R12, SINGLE FEED CHART
- RESULT: 5 Feeds, 54" BC1

MADE IN THE USA

CTC3 Cap Tube Computer

Calculate the flow rate of a defective cap tube and duplicate that flow rate with cap tubes that have a different I.D.

Features

- Computes inside diameter, length, refrigerant, horse power, application and flow rate
- Shows temperature/pressure charts for 12 refrigerants
- Compact, light weight & easy to use!
- Converts Cap Tubing used with refrigerants R12, 134A, R22, and R502 only.

Added Notes

- Use R12 conversion for R416A
- Use R134 conversion for R401A, R401B, R406A, R500, R409A
- Use R502 conversion for R402B, R403B, R404A, R407C,R408A

Multi-Plus Dual Brand V-Belts

Clearly identifying RMA classical part number and dimensionally equivalent FHP number, the Multi-plus belt is designed to reduce you total V-Belt investment.

- Consolidate belts sizes into a single belt line
- Able to handle classical and FHP drive applications
- Higher performance at competitive prices

JASON INDUSTRIAL

Applications

- HVAC
- Refrigeration
- Industrial

"A & B" Section

"BX" Section

"A" Section Classical V Belts

- 1/2 inch top width
- 11/32 inch thick
- Dual Brand A & 4L

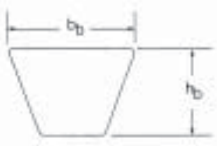
"B" Section Classical V Belts

- 21/32 inch top width
- 13/32 inch thick
- Dual Brand B & 5L

"BX" Section Cogged Multiple V Belts

- 21/32 inch top width
- 13/32 inch thick

Belt Section (Pitch)	b (Angle)	bb (Width)	hb (Height)
A	40°	.50 in	.31 in
B, BX	40°	.66 in	.41 in

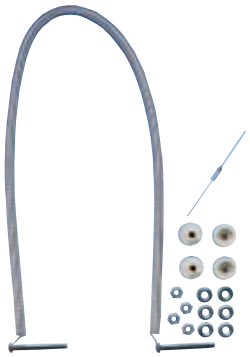


PART NO.	CROSS to L's	APPROX. OUTSIDE LENGTH	PART NO.	CROSS to L's	APPROX. OUTSIDE LENGTH	PART NO.	CROSS to L's	APPROX. OUTSIDE LENGTH	PART NO.	CROSS to L's	APPROX. OUTSIDE LENGTH	PART NO.	CROSS to L's	APPROX. OUTSIDE LENGTH
A100	4L1020	102	A64	4L660	66	B42	5L450	45	B98	5L1010	101	BX54		57
A105		107	A65	4L670	67	B43	5L460	46	B99	5L1020	102	BX55		58
A110		112	A66	4L680	68	B44	5L470	47	B100		103	BX56		59
A112		114	A67	4L690	69	B45	5L480	48	B101		104	BX58		61
A116		118	A68	4L700	70	B46	5L490	49	B102		105	BX59		62
A120		122	A69	4L710	71	B47	5L500	50	B103		106	BX60		63
A124		126	A70	4L720	72	B48	5L510	51	B104		107	BX61		64
A128		130	A71	4L730	73	B49	5L520	52	B105		108	BX62		65
A136		138	A72	4L740	74	B50	5L530	53	B106		109	BX63		66
A144		146	A73	4L750	75	B51	5L540	54	B107		110	BX64		67
A158		160	A74	4L760	76	B52	5L550	55	B108		111	BX65		68
A19	4L210	21	A75	4L770	77	B53	5L560	56	B110		113	BX66		69
A20	4L220	22	A76	4L780	78	B54	5L570	57	B111		114	BX67		70
A21	4L230	23	A77	4L790	79	B55	5L580	58	B112		115	BX68		71
A22	4L240	24	A78	4L800	80	B56	5L590	59	B114		117	BX70		73
A23	4L250	25	A79	4L810	81	B57	5L600	60	B115		118	BX71		74
A24	4L260	26	A80	4L820	82	B58	5L610	61	B116		119	BX75		78
A25	4L270	27	A81	4L830	83	B59	5L620	62	B118		121	BX77		80
A26	4L280	28	A82	4L840	84	B60	5L630	63	B120		123	BX78		81
A27	4L290	29	A83	4L850	85	B61	5L640	64	B124		127	BX79		82
A28	4L300	30	A84	4L860	86	B62	5L650	65	B126		129	BX80		83
A29	4L310	31	A85	4L870	87	B63	5L660	66	B128		131	BX81		84
A30	4L320	32	A86	4L880	88	B64	5L670	67	B130		133	BX82		85
A31	4L330	33	A87	4L890	89	B65	5L680	68	B133		136	BX83		86
A32	4L340	34	A88	4L900	90	B66	5L690	69	B134		137	BX85		88
A33	4L350	35	A89	4L910	91	B67	5L700	70	B135		138	BX90		93
A34	4L360	36	A90	4L920	92	B68	5L710	71	B136		139	BX93		96
A35	4L370	37	A91	4L930	93	B69	5L720	72	B140		143	BX95		98
A36	4L380	38	A92	4L940	94	B70	5L730	73	B144		147	BX96		99
A37	4L390	39	A93	4L950	95	B71	5L740	74	B152		155	BX97		100
A38	4L400	40	A94	4L960	96	B72	5L750	75	B158		161	BX99		102
A39	4L410	41	A95	4L970	97	B73	5L760	76	B162		165	BX100		103
A40	4L420	42	A96	4L980	98	B74	5L770	77	B173		176	BX103		106
A41	4L430	43	A97	4L990	99	B75	5L780	78	B180		183	BX105		108
A42	4L440	44	A98	4L1000	100	B76	5L790	79	B195		198	BX112		115
A43	4L450	45	A99	4L1010	101	B77	5L800	80	B210		213	BX116		119
A44	4L460	46	B22	5L250	25	B78	5L810	81	B225		227	BX120		123
A45	4L470	47	B23	5L260	26	B79	5L820	82	B240		242	BX124		127
A46	4L480	48	B24	5L270	27	B80	5L830	83	B255		257	BX128		131
A47	4L490	49	B25	5L280	28	B81	5L840	84	B270		272	BX133		135
A48	4L500	50	B26	5L290	29	B82	5L850	85	B285		287	BX136		139
A49	4L510	51	B27	5L300	30	B83	5L860	86	B300		302	BX144		147
A50	4L520	52	B28	5L310	31	B84	5L870	87	B315		317	BX150		153
A51	4L530	53	B29	5L320	32	B85	5L880	88	B330		332	BX158		161
A52	4L540	54	B30	5L330	33	B86	5L890	89	B360		362	BX162		163
A53	4L550	55	B31	5L340	34	B87	5L900	90	BX35		38	BX173		176
A54	4L560	56	B32	5L350	35	B88	5L910	91	BX36		39	BX180		183
A55	4L570	57	B33	5L360	36	B89	5L920	92	BX38		41	BX195		198
A56	4L580	58	B34	5L370	37	B90	5L930	93	BX42		45	BX210		213
A57	4L590	59	B35	5L380	38	B91	5L940	94	BX43		46	BX225		226.5
A58	4L600	60	B36	5L390	39	B92	5L950	95	BX46		49	BX240		241.5
A59	4L610	61	B37	5L400	40	B93	5L960	96	BX48		51	BX255		256.5
A60	4L620	62	B38	5L410	41	B94	5L970	97	BX50		53	BX270		271.5
A61	4L630	63	B39	5L420	42	B95	5L980	98	BX51		54	BX300		301.5
A62	4L640	64	B40	5L430	43	B96	5L990	99	BX52		55			
A63	4L650	65	B41	5L440	44	B97	5L1000	100	BX53		56			

We have the full product line of HVAC Belts • Please call if you need other belts.

See page 101 for Belt Adjustment Tools (BJ10 & BJ10PLUS)

DH Series Duct Heater Coil Kits



DH500
(DH500 Series 3/8" O.D.)

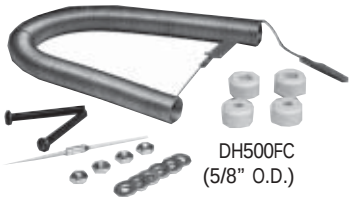
Features

- Nichrome heavy gauge construction.
- Welded terminal bolts for low resistance and longer life.
- Complete kits contains close wound coil to fit many applications, two male and two female bushings, terminal screws, nuts and washers to make a proper repair. The DH500 & DH500FC kits include the SUPCO STC in line series thermal cutoffs.

Applications

Replacement coil kits for many electric heat applications.

- Duct Heaters
- Electric Furnaces
- Air Curtains
- Strip Heaters



DH500FC
(5/8" O.D.)

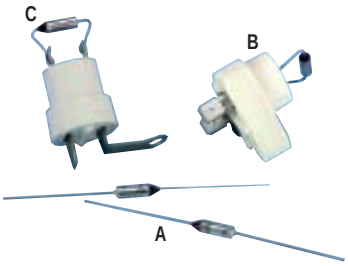
Tech Tip
The coil should be evenly stretched a minimum of 1 1/2 to 5 times the close wound length.

Tech Tip
When stretching coils measure length needed and stretch new coil slightly shorter. After installation, cycle with the heater on and allow full operation for 5 minutes. Any manufacturing flaws in the coil will show up quickly.

PART NO.	MARS PART NO.	CLOSE WOUND LENGTH	WATTAGE AT VOLTS	WATTAGE AT VOLTS
DH500*	34601	28"	5000@240	3750@208
DH500-3		23"	5000@480	
DH500-4	34606	28"	5000@277	
DH500FC*		12"	5000@240	3750@208
DH501	34608	22"	3500@240	2600W@208
DH502	34614	19"	2000@240	1500@208
DH502-3		20"	2000@480	
DH502-4		18"	2000@277	
DH503	34616	18"	2500@240	1800@208
DH503-3		22"	2500@480	
DH503-4	34620	21"	2500@277	
DH504	34622	18"	1500@240	1125@208
DH506	34630	26 1/2"	4000@240	
DH507		18 1/2"	3000@240	2250@208
DH507-4	34640	18"	3000@277	
DH520	34652	31 1/2"	6600@240	5000@208
DH534	34656	26"	6000@240	4500@208
DH560		28"	5600@240	4200@208

*Includes 306°F Thermal Cutoff SUPCO p/n STC4300

STC Series Thermal Cutoffs



Features

- STC thermal cutoffs are available in a range of temperature and electrical ratings to meet a variety of different applications.
- Provides reliable back up protection for temperature controlling thermostats and other over temperature conditions.
- One time operation.
- Three configurations available to accommodate in line or face plate mounting.
- Rated for continuous operating currents of up to 10 amps @ 250VAC (15 amps @ 120VAC).
- Used with the SUPCO DH series duct heaters.

Applications

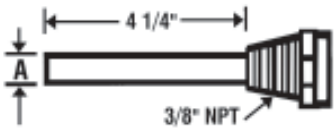
Manufactured as a thermal safeguard, the SUPCO STC opens the circuit if the designed temperature limit is reached.

- Duct heaters
- Electric furnaces
- Heat Pump systems
- Portable electric heaters
- Industrial equipment
- Office machines

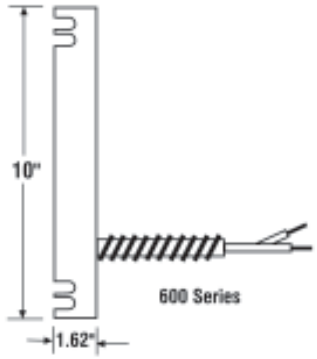
PART NO.	T-O-D PART NO.	DIVERSITEC PART NO.	A-1 PART NO.	OPEN TEMP. °F	OPEN TEMP. °C	TYPE	REF.
STC4257	G4A01128C	HFL4257	TC4257	262°F	128°C	In Line	A
STC4283	G4A01144C		TC4283	291°F	144°C	In Line	A
STC4300	G4A01152C	HFL4300	TC4300	306°F	152°C	In Line	A
STC4333	G4A01167C	HFL4333	TC4333	333°F	167°C	In Line	A
STC4358	G4A01184C			363°F	184°C	In Line	A
STC4438	G4A01228C		TC4438	442°F	228°C	In Line	A
STC4468	G4A01240C		TC4468	464°F	240°C	In Line	A
STC5257	G4AM0600128C	HFL5257	TC5257	262°F	128°C	Face Plate Straight	B
STC5300	G4AM0600152C	HFL5300	TC5300	306°F	152°C	Face Plate Straight	B
STC5333	G4AM0600167C	HFL5333	TC5333	333°F	167°C	Face Plate Straight	B
STC5337				337°F	169°C		
STC5377	G4AM0600192C		TC5377	378°F	192°C	Face Plate Straight	B
STC6257	G4AM0600128C			262°F	128°C	Face Plate Right Angle	C
STC6300	G4AM0600152C			306°F	152°C	Face Plate Right Angle	C
STC6333	G4AM0600167C			333°F	167°C	Face Place Right Angle	C

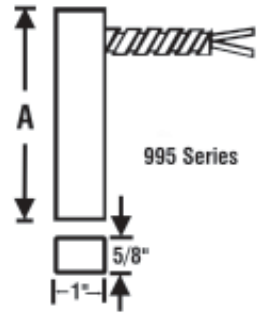
MADE IN THE USA

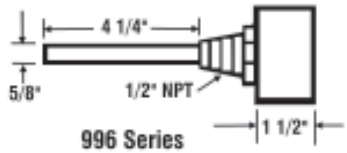
Crankcase Heaters



054 Series







996 Series

Exact Replacement Crankcase Heaters 054, 600, 995 & 996 Series

054 Series Exact Replacement Crankcase Heaters

PART NO.	WATTS	VOLTS	"A"	COPELAND NO.
054-1	65	550	3/8	518-0001-00
054-3	65	230	3/8	518-0001-02
054-4	65	115	3/8	518-0001-03

600 Series Exact Replacement Crankcase Heaters

PART NO.	WATTS	VOLTS	COPELAND NO.
600-1	65	120	018-0034-00
600-2	65	240	018-0034-01
600-3	65	480	018-0034-02
600-4	65	600	018-0034-03

995 Series Exact Replacement Crankcase Heaters

PART NO.	WATTS	VOLTS	"A"	COPELAND NO.
995-17	50	240	-	018-0023-01
995-18	50	420	-	018-0023-029
995-19	50	120	-	018-0023-00
995-20	50	480	-	018-0023-03
995-21	50	120	-	018-0028-01 998-0118-05 918-0118-05

NOTE: Mounting clips are available. Specity 995-C when ordering.

996 Series Exact Replacement Crankcase Heaters

PART NO.	WATTS	VOLTS	COPELAND NO.
996-1	100	550	518-0002-00
996-3	100	230	518-0002-02
996-4	100	115	518-0002-03
996-9	70	120	518-0027-04
996-11	70	480	518-0027-06

Exact Replacement Crankcase Heaters Cross Reference

SUPCO P/N	MARS P/N	COPELAND P/N	COPELAND COMPRESSOR MODEL
054-1		518-0001-00	
054-3	32403	518-0001-02	3D, 9D, 9R
054-4	32405	518-0001-03	3D, 9D, 9R
600-1	32490	018-0034-00	4R,6R,6T,9R,9T,9WW,E,MW, 3A,3R,LA,MR,NR,EA,ER,LW,MD
600-2	32491	018-0034-01	4R,6R,6T,9R,9T,9WW,E,MW,3A, 3R,LA,MR,NR,EA,ER,LW,MD
600-3	32492	018-0034-02	E,9R,9W,MW,3A,3R,LA,MR,NR, EA,ER,LW,MD
600-4	32493	018-0034-03	E,9R,9W,MW,3A,3R,LA,MR,NR
995-18		018-0023-02	
995-19	32439	018-0023-00	K&H
995-20	32440	018-0023-03	K&H

SUPCO P/N	MARS P/N	COPELAND P/N	COPELAND COMPRESSOR MODEL
995-21	32441	018-0028-01	K&H
	32441	998-0118-05	K&H
	32441	918-0018-05	K&H
995-22	32443	018-0028-02	K&H
	32443	998-0118-06	K&H
	32443	918-0118-06	K&H
996-1		518-0002-00	
996-3	32409	518-0002-02	4R,6R,6T,4D,6D
996-4	32410	518-0002-03	4R,6R,6T,4D,6D
996-9		518-0027-04	
996-11		518-0027-06	

Heaters

CH Series Compressor Heaters

Features

- Prevents refrigerant migration which causes compressor damage.
- Entire heating band is corrosion resistant
- Installs quickly and easily
- Low power consumption
- High temperature silicone rubber element
- 30" long insulated leads

Applications

- Air Conditioning
- Heat Pumps
- Refrigeration Compressors

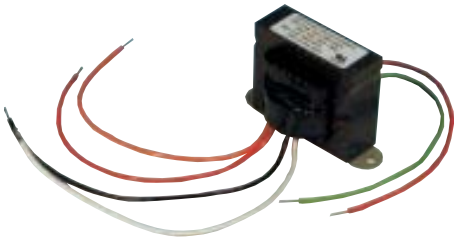
MADE IN THE USA

PART NO.	VOLTS	WATTS	GIRTH DIM. MIN.	GIRTH DIM. MAX.	COPELAND PART NO.	MARS PART NO	FITS COMPRESSOR
CH100	240	50	30 3/16"	37"	018-0037-02	32601	Bendix/Westinghouse: C, D Copeland: Y
CH1002	120	50	30 3/16"	37"			Tecumseh: B, C, CL, AG, AV
CH1003	480	50	30 3/16"	37"		32604	Carlysle: W (70-88)
CH1006	575	50	30 3/16"	37"			
CH101	240	54	27 7/16"	34 1/4"		32605	Aspera: H, Bendix / Westinghouse: E,
CH101-2	120	54	27 7/16"	34 1/4"	018-0037-00	32607	Tecumseh: AH, Trane: D4350/689, D4359/690, Westinhouse: CD072, CD090, Copeland: CR
CH101-3	480	54	27 7/16"	34 1/4"	018-0037-03	32608	
CH102	240	60	25 3/4"	32 9/16"		32609	Tecumseh: AJ, Trane: D4340/7669
CH102-2	120	60	25 3/4"	32 9/16"		32611	
CH1026	575	60	35 3/4"	32 9/16"			
CH103	240	45	24 3/4"	31 9/16"	018-0038-02	32613	Bristol: H10B, H20B, H21G, H22B, H2NG-144
CH1031	208	45	24 3/4"	31 9/16"		32614	Copeland: VR, TRANE: D4340/7670,
CH103-2	120	45	24 3/4"	31 9/16"	018-0038-00		Westinghouse: CD072, CD090
CH104	240	75	41 1/2"	48 5/16"		32617	Carrier: 6A88, Fedder Chrysler 3009
CH1042	120	75	41 1/2"	48 5/16"		32619	Bristol: H106, H206, H21G, H22G
CH1046	575	75	41 1/2"	48 5/16"			
CH105	240	50	32 1/2"	39 5/16"		32621	Copeland: ZR, Trane: DE4340, 7570
CH1051	208	50	32 1/2"	39 5/16"		32622	Westinghouse: CD072/CD090
CH1053	480	50	32 1/2"	39 5/16"		32624	
CH115	240	40	30 3/16"	37"		32625	Carmer/Carlysle: 6R
CH1152	120	40	30 3/16"	37"		32626	
CH120	240	90	30 3/16"	37"			Sanyo: CR15F, CR20F, CR33F
CH1202	120	90	30 3/16"	37"			Copeland: BR
CH1242	120	90	30 3/16"	37"			
CH134	240	40	28 3/16"	35 5/8"		32627	Carmer/Carlysle: 6M
CH1342	120	40	28 3/16"	35 5/8"		32628	Copeland: JR, Tecumseh: AK
CH135	240	45	20 5/16"	27 1/8"		32629	
CH1352	120	45	20 5/16"	27 1/8"	018-0039-00	32630	
CH197	240	25	13 3/4"	20 9/16"		32631	Fedders Chrysler: 2870908, Sanyo: CR151F, CR20F, CR33F
CH1972	120	25	13 3/4"	20 9/16"			

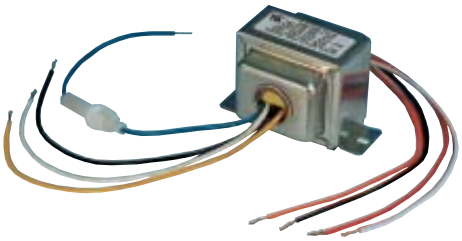
Control Transformers

A complete line of Control transformers designed for HVAC/R applications.

- Foot or Multi-mount
- Output from 20 – 100 VA
- A multitude of Primary and Secondary combinations
- Circuit breakers and fuses where noted



SXT105



SXT111

Foot Mount Transformers

PART NO.	PRIMARY V	SECONDARY V	OUTPUT VA	BREAKER/FUSE	MOUNT TYPE
SXT100R	120/208/240/480	24	100	Breaker	Foot
SXT101	120/208/240	2.5/12/24	40	Fuse	Foot
SXT103	277	24	40	No	Foot
SXT104	208/240	24	40	No	Foot
SXT105	120/208/240	24	40	No	Foot
SXT114	120/208/240	24	20	No	Foot
SXT115	120/208/240	24	40	No	Foot
SXT116	120	24	40	No	Foot
SXT160	208/240	24	60	Fuse	Foot
SXT79R	120/208/240/480	24	75	Breaker	Foot
SXT100R	120/208/240/480	24	100	Breaker	Foot
SXT175	120/208/240	24	75	Fuse	Foot

Multi-Mount Transformers

PART NO.	PRIMARY V	SECONDARY V	OUTPUT VA	BREAKER/FUSE	MOUNT TYPE
SXT106	120/208/240	24	40	No	Multi
SXT111	120/208/240	2.5/12/24	40	Fuse	Multi
SXT112	120	24	40	No	Multi
SXT113	208/240	24	40	No	Multi
SXT148	120/208/240	2.5/12/24	48	No	Multi
SXT150	120/208/240	24	50	Fuse	Multi

Cross Reference

Foot Mount

SUPCO PART NO.	JARD PART NO.	MARS PART NO.	UEI PART NO.	WHITE-RODGERS PART NO.	HONEYWELL PART NO.
SXT101	4032F	50355	UET101	N/A	N/A
SXT103	N/A	N/A	N/A	N/A	N/A
SXT104	4021F	50353	N/A	90-T40F2	AT40A1139, AT40B1032
SXT105	4031F	50354	UET105	90-T40F3	AT40A1121, AT40A1139, AT40B1214
SXT114	2031F	50351	UET114	N/A	AT20A1123
SXT115	4031F	50354	UET115	90-T40F3	AT40A1121, AT40A1139, AT40B1214
SXT116	4011F	50352	N/A	90-T40F1	AT40A1121, AT40B1206
SXT160	6021F	50316	UET160	N/A	N/A
SXT79R	7541C	50321	UET79R	90-T75C3	AT88A1005, AT88A1021, AT88A1047
SXT100R	10041C	50341	UET100R	N/A	N/A
SXT175	7541M	50320	UET175	90-T75C3	AT88A1005, AT88A1021, AT88A1047

Multi-Mount

SUPCO PART NO.	JARD PART NO.	MARS PART NO.	UEI PART NO.	WHITE-RODGERS PART NO.	HONEYWELL PART NO.
SXT106	4031M	50304	N/A	90-T40M3	AT40A1018, AT72D1683, AT72D1691, AT140A1018
SXT111	5032M	50333	UET111	N/A	N/A
SXT112	4011M	50302	UET112	90-T40M1	AT72D1683, AT140A1000
SXT113	4021M	50303	UET113	90-T40M2	AT72D1691, AT140A1026
SXT148	5032M	50333	N/A	N/A	N/A
SXT150	5031M	50314	UET150	90-T50M3	AT87A1106, AT87A1007, AT87A1049, AT87A1056, AT150A1007

T45 Universal Transformer

A versatile transformer that can be used for many different applications. Accepts input voltages of 120, 208, and 240 VAC and provides a choice of secondary voltages of 2.5, 8, 12, 16 and 24 VAC.

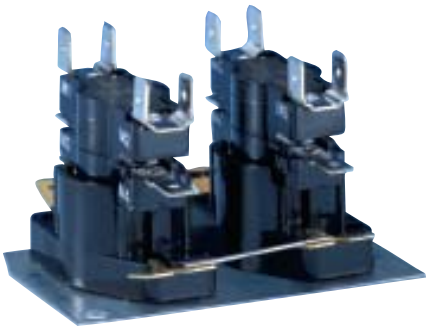
- 50/60 Hz Class 2
- Enclosed Frame - Plate, Foot or Knock-Out Mount

PART NO.	PRIMARY VAC	SECONDARY VAC	VA	H	W	D	MW
T45	120/208/240	2.5, 8,12,16 and 24	48	2 1/16"	3 1/4"	2 3/4"	2 13/16"

NOTE: Transformer is furnished with a 4" x 4" mounting plate, wire nuts, 1/2" conduit and 8" leads.

Sequencers

THERMODISC



Features

- Direct replacement for most fan & heat sequencing functions.
- 24 volt input control
- Contacts designated M1 – M2 of a multi timing sequencer will turn on first and turn off last, as required by UL and CSA for electric heating applications.
- Five second on delay between all subsequent stages, unless they function together.

Applications

The SUPCO Q Series and Sequencers are field proven for controlling the operation of heating elements and or blower motors in electric, gas or oil heat systems.

- Electric furnaces
- Heat Pumps
- Gas furnaces
- Oil furnaces

Recommended Sequencer Packages for Electric Heating

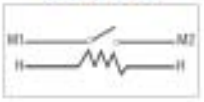
Note 1: Auxiliary Contacts: In the above recommended packages, during the ON cycle, the auxiliary contacts complete the control circuit to subsequent 15S sequencers when more than one 15S sequencer is required. The auxiliary contacts may be any contacts in the first 15S sequencer except those marked M1-M2.

Note 2: Fan Interlock: The recommended combinations which contain more than one 15S sequencer include an extra set of contacts for fan interlock. (These are the first contacts of the second and third 15S sequencers.) A fan interlock is required by Underwriters Laboratories in order to guarantee that the fan will stay on until all elements are de-energized. All of the M1-M2 contacts of each 15S unit would be wired to the fan so that during the OFF cycle, the fan would stay energized regardless of the timing sequence of each package.

Note 3: Main Contacts, Electrical Ratings: 7FLA, 4LRA, 240 VAC inductive or 30A, 240 VAC resistive or 30A, 240 VAC total of inductive or resistive, with 7FLA, 240 VAC maximum inductive.

Note 4: Control Voltage on Heater Terminals (H): 24 VAC nominal (heater rated for 30 VAC/NEMA Class II circuit).

Q101 & Q109

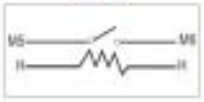


Q101 OFF 40-110 Sec.
ON 1-20 Sec.
Q109 OFF 40-110 Sec.
ON 20-50 Sec.

Q104 & Q110

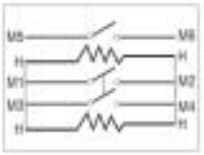
Q104 OFF 1-30 Sec.
ON 30-90 Sec.
Q110 OFF 30-60 Sec.

Q102



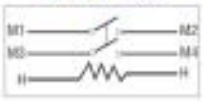
OFF 1-30 Sec.
ON 30-90 Sec.

Q105



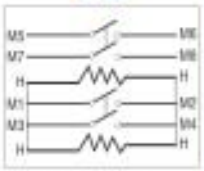
OFF 1-110 Sec.
ON 1-110 Sec.

Q103 & Q113



Q103 OFF 40-110 Sec.
ON 1-20 Sec.
*Q113 OFF 15-65 Sec.
ON 30-10 Sec.
*Q113 Has 240 Volt Heater

Q106

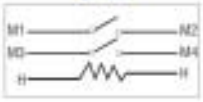


OFF 1-110 Sec.
ON 1-110 Sec.

Q108

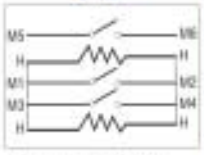
OFF 65-115 Sec.
ON 1-25 Sec.

Q111



OFF M1-M2 90-160 Sec.
ON M1-M2 10-40 Sec.

Q107



OFF 40-110 Sec.
ON 1-20 Sec.

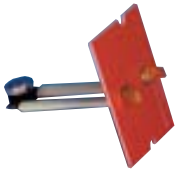
Q112

OFF M1-M2 90-150 Sec.
ON M1-M2 10-3 Sec.
OFF M3-M4 30-60 Sec.
ON M3-M4 10-30 Sec.
OFF M5-M6 30-60 Sec.
ON M5-M6 10-30 Sec.

Cross Reference

SUPCO	MARS	WATSCO	KLIXON	TOD	W/R	HUGHES	WILMAR	JEPCO	OEM
Q101	33241	TDR10	6000AONI-98	15SH1309571	24A34-1	***	***	***	***
Q102	33242	TDR15	6000AONI-97	15SH1309572	24A34-2	102761	***	***	***
Q103	33244	TDR20	6000AONI-87	15SH2309573	24A34-3	102763	***	TD12	Janitrol BT1256504
Q104	33245	TDR25	6000AONI-86	15SH2309574	24A34-4	102765	***	TD34	***
Q105	33232	TDR30	51172-32	15SH21309575	24A34-5	102768	***	51172-32-2	***
Q106	33233	***	51172-22	15SH22309576	24A34-6	***	***	***	***
Q107	***	***	***	15SH41	***	***	***	***	***
Q108	***	***	***	12S50M	***	***	***	***	***
Q109	***	***	***	15SH1	***	102790	***	***	Goodman B13707-38
Q110	***	***	***	12S22	***	102788	***	***	Janitrol BT1256500
Q111	***	***	***	14S22	***	102786	***	***	Weatherking 422311608
Q112	***	***	***	14SX22	***	102787	***	***	Weatherking 422311606
Q113	33265	***	***	12S22	***	***	53-0834	***	Weatherking 422311607

*Note all sequencers include a 24 volt heater, except the Q113 which has a 240 volt heater.



Gas Furnace Limits and Plenum Thermostats

THERMODISC

- Direct OEM Replacements
- Economical
- Use 36T Electrical Ratings

PLENUM THERMOSTATS

PART NO.	DESCRIPTION	OPEN °F	CLOSE °F	BOARD WIDTH	BOARD HEIGHT	INSERTION LENGTH	BDP BRYANT DAY & NIGHT PAYNE	CARRIER JANITROL GMC	GOODMAN AIR-EASE ARMSTRONG CONCORD MAGIC CHEF	LENNOX CORSAIR RUUD WEATHER KING	RHEEM TRANE GE	YORK BORG-WARNER FRAZIER JOHNSON LUXAIR
SHL501	L170-40 SPST	170°F	130°F	1.88"	2.8"	3.12"	HH12ZA174A HH12ZA176A P331-2203					
SHL502	L180-30 SPST	180°F	150°F	1.88"	2.8"	3.12"	HH12ZA178A	B1370001				
SHL503	L190-40 SPST	190°F	150°F	1.88"	2.8"	3.12"	HH12ZA189 HH12ZB190 HH12ZA193A P331-2205					
SHL504	L240-40 SPST	240°F	200°F	1.88"	2.8"	3.12"	HH12ZA240 HH12ZA252A P331-2217					
SHL505	L140-40 SPST	140°F	100°F	1.88"	2.8"	1.87"	HH12ZB140					025-29041-005
SHL506	L170-40 SPST	170°F	130°F	1.88"	2.8"	1.87"	HH12ZB170			47-25349-02	SWT1258	
SHL507	L140-30 SPST	140°F	110°F	1.88"	2.8"	3.12"	HH12ZA140		87F16			025-29041-005
SHL508	L190-20 SPST	190°F	170°F	1.88"	2.8"	3.12"	HH12ZB190 HH12ZA193 HH12ZA189 P331-2005	B1370913		47-21711-03	SWT1260	025-29041-006
SHL509	L240-30 SPST	240°F	210°F	1.88"	2.8"	3.12"	HH12ZB240 HH12ZA240 HH12ZA252 P331-2217	B1370903				
SHL510	L150-20 SPST	150°F	130°F	1.625"	1.44"	3.12"	HH12ZB150			47-25349-03		
SHL511	L160-20 SPST	160°F	140°F	1.625"	1.44"	3.12"	HH12ZB160	1370908S		47-21711-07		
SHL512	L170-20 SPST	170°F	150°F	1.625"	1.44"	3.12"	HH12ZB170			47-25350-06		
SHL513	L170-40 SPST	170°F	130°F	1.88"	2.94"	3.12"	HH12ZB170		26H66		SWT1258	
SHL514	L180-40 SPST	180°F	140°F	1.88"	2.94"	3.12"	HH12ZB180		37H73			
SHL515	L200-40 SPST	200°F	160°F	1.88"	2.94"	3.12"	HH12ZB200 HH12ZA199 HH12ZA201		49L03	47-25349-05	SWT1260	025-29041-006
SHL516	L210-40 SPST	210°F	170°F	1.88"	2.94"	3.12"	HH12ZB210					
SHL517	L220-40 SPST	220°F	180°F	1.88"	2.94"	3.12"	HH12ZB220 HH12ZA219 HH12ZA223 48NHT042 620BE 0122				SWT1273	
SHL518	L250-40 SPST	250°F	210°F	1.88"	2.94"	3.12"	HH12ZB250 HH12ZA251 P331-2208	B1370012S			SWT1261 SWT1272	
SHL519	L155-30 SPST	155°F	125°F	1.88"	2.8"	7.12"		B1370006 B1370908S				

Manual Reset Limit Control* - Open on Rise

PART NO.	DESCRIPTION	OPEN	CLOSE
SHM130	Limit - Open on Rise	130	Manual
SHM160	Limit - Open on Rise	160	Manual
SHM170	Limit - Open on Rise	170	Manual
SHM180	Limit - Open on Rise	180	Manual
SHM190	Limit - Open on Rise	190	Manual
SHM200	Limit - Open on Rise	200	Manual
SHM290	Limit - Open on Rise	290	Manual
SHM350	Limit - Open on Rise	350	Manual

*Adapter Flange Plate included with each thermostat.
*Use 60T Electrical Ratings

Thermostats

Rollout Switches

THERMODISC

Features/Benefits

- Auto and Manual Reset
- Offered in a broad temperature range to cover most heating applications

Applications

- Automatic or Manual Rollout safety in gas fired furnaces, unit heater and roof top units.

Small Flush Mount SPST Limit Thermostats (Flush Mount Automatic Rollout)

PART NO.	TERMINALS	CUT OUT	CUT IN	DIFFERENTIAL
SLF130-VA	Vertical 1/4"	130	115	15
SLF155-VA	Vertical 1/4"	155	115	40
SLF158-VB	Vertical 3/16"	158	118	40
SLF165-VA	Vertical 1/4"	165	125	40
SLF170-VA	Vertical 1/4"	170	130	40
SLF185-VB	Vertical 3/16"	185	145	40
SLF190-HA	Horizontal 1/4"	190	150	40
SLF194-HB	Horizontal 3/16"	194	154	40
SLF194-VB	Vertical 3/16"	194	154	40
SLF200-HA	Horizontal 1/4"	200	160	40
SLF200-VA	Vertical 1/4"	200	160	40
SLF210-HA	Horizontal 1/4"	210	170	40
SLF222-VA	Vertical 1/4"	222	182	40

Small Flush Mount SPST Limit Thermostats (Flush Mount Automatic Rollout)

PART NO.	TERMINALS	CUT OUT	CUT IN	DIFFERENTIAL
SLF230-HA	Horizontal 1/4"	230	190	40
SLF230-HB	Horizontal 3/16"	230	190	40
SLF250-HA	Horizontal 1/4"	250	200	50
SLF252-VA	Vertical 1/4"	252	202	50
SLF252-VB	Vertical 3/16"	252	202	50
SLF255-VA	Vertical 1/4"	255	205	50
SLF260-HA	Horizontal 1/4"	260	210	50
SLF275-HB	Horizontal 3/16"	275	225	50
SLF275-VB	Vertical 3/16"	275	225	50
SLF280-HB	Horizontal 3/16"	280	230	50
SLF300-HB	Horizontal 3/16"	300	250	50
SLF300-VA	Vertical 1/4"	300	250	50
SLF330-VA	Vertical 1/4"	330	280	50

Automatic Rollouts - SPST Limit Thermostats

PART NO.	TERMINALS	CUT OUT	CUT IN	DIFFERENTIAL
SLS85	45° angle 1/4"	85	70	15
SLS120	45° angle 1/4"	120	105	15
SLS130	45° angle 1/4"	130	115	15
SLS140	45° angle 1/4"	140	100	40
SLS145	45° angle 1/4"	145	105	40
SLS150	45° angle 1/4"	150	110	40
SLS155	45° angle 1/4"	155	115	40
SLS160	45° angle 1/4"	160	120	40
SLS165	45° angle 1/4"	165	125	40
SLS170	45° angle 1/4"	170	130	40
SLS175	45° angle 1/4"	175	135	40

Automatic Rollouts - SPST Limit Thermostats

PART NO.	TERMINALS	CUT OUT	CUT IN	DIFFERENTIAL
SLS180	45° angle 1/4"	180	140	40
SLS200	45° angle 1/4"	200	160	40
SLS250	45° angle 1/4"	250	200	50
SLS255	45° angle 1/4"	255	205	50
SLS265	45° angle 1/4"	265	215	50
SLS275	45° angle 1/4"	275	225	50
SLS285	45° angle 1/4"	285	235	50
SLS295	45° angle 1/4"	295	245	50
SLS300	45° angle 1/4"	300	250	50
SLS300HB	Horizontal 3/16"	300	250	50
SLS350	45° angle 1/4"	350	300	50

Manual Rollouts - Flush Mount SPST Limit Thermostats

PART NO.	TERMINALS	CUT OUT	CUT IN
SRLF275VA	Vertical 1/4"	275	Manual
SRLF320VA	Vertical 1/4"	320	Manual

Manual Rollouts - SPST Limit Thermostats

PART NO.	TERMINALS	CUT OUT	CUT IN	PART NO.	TERMINALS	CUT OUT	CUT IN
SRL130	Vertical 1/4"	130	Manual	SRL250	Vertical 1/4"	250	Manual
SRL135	Vertical 1/4"	135	Manual	SRL260	Vertical 1/4"	260	Manual
SRL220	Vertical 1/4"	220	Manual	SRL300	Vertical 1/4"	300	Manual
SRL230	Vertical 1/4"	230	Manual	SRL350	Vertical 1/4"	350	Manual
SRL240	Vertical 1/4"	240	Manual	SRL300ICP		300	Manual

SRL Series X Ref

PART NO.	REPLACES OEM	OEM P/N
SRL130	Rheem/Ruud Weatherking	47-22453-01
SRL135	Rheem/Ruud Weatherking	47-22453-02
SRL220	Nordyne	626354
SRL230	Nordyne	626353
SRL240	Nordyne	626355
SRL250	Nordyne	626352

PART NO.	REPLACES OEM	OEM P/N
SRL260	Nordyne	626350
SRL300	Nordyne	626343
	Rheem/Ruud Weatherking	47-22861-02
SRL300ICP	ICP	1013102
SRL350	Goodman	B13701-54

HVAC Flush Mount Adjustable Airstream Thermostats

PART NO.	5/16" AIRSTREAM INSERT	ADJUSTABLE RANGE		DIFFERENTIAL	BRAND	GEM NO.
HF757	Fan -Close on Rise	70	180	30	White Rodgers	757-1
HL758	Limit - Open on Rise	110	200	30	White Rodgers	758-1
					Carrier	HH680316


AT


FLAT

Adjustable AT Series

- Series covers almost 95% of heater and dryer applications
- Dial knob
- 40° adjustable range
- 1/4" quick connect terminals
- Use 60T Electrical Ratings

THERMODISC

Adjustable Thermostats

PART NO. STANDARD MOUNT	FLUSH MOUNT	ADJUSTABLE RANGE		DIFFERENTIAL
AT012	FLAT012	135	175	20
AT013	FLAT013	175	215	40
AT014	FLAT014	210	250	40
AT015	FLAT015	250	290	40

Open on temperature rise

Adjustable Airflow Thermostats

PART NO. STANDARD MOUNT	FLUSH MOUNT	ADJUSTABLE RANGE		DIFFERENTIAL
AT021	FLAT021	90	130	20
AT022	FLAT022	140	180	20

Close on temperature rise


SHF


SHL

Fan Control* - Close on Rise

PART NO.	DESCRIPTION	CUT OUT	CUT IN	DIFFERENTIAL
SHF90	Fan	80	90	10
SHF110	Fan	90	110	20
SHF110DC	Fan - Deep Cup	90	110	20
SHF120	Fan	110	120	10
SHF130	Fan	115	130	15
SHF140	Fan	120	140	20
SHF150	Fan	130	150	20
SHF160	Fan	140	160	20
SHF170	Fan	150	170	20
SHF180	Fan	160	180	20
SHF200	Fan	180	200	20
SHF250	Fan	220	250	30

*Adapter Flange Plate included with each thermostat.

*Use 60T Electrical Ratings Page 44

Limit Control* - Open on Rise

PART NO.	DESCRIPTION	CUT OUT	CUT IN	DIFFERENTIAL
SHL120	Limit - Open on Rise	120	110	10
SHL140	Limit - Open on Rise	140	100	40
SHL150	Limit - Open on Rise	150	110	40
SHL160	Limit - Open on Rise	160	120	40
SHL170	Limit - Open on Rise	170	130	40
SHL180	Limit - Open on Rise	180	140	40
SHL190	Limit - Open on Rise	190	150	40
SHL200	Limit - Open on Rise	200	160	40
SHL210	Limit - Open on Rise	210	130	80
SHL230	Limit - Open on Rise	230	190	40
SHL250	Limit - Open on Rise	250	210	40
SHL300	Limit - Open on Rise	300	250	50
SHL325	Limit - Open on Rise	325	275	50

*Adapter Flange Plate included with each thermostat.

*Use 60T Electrical Ratings Page 44

Suspended Limit Thermostats (Terminal Suspended)

PART No.	DESCRIPTION	RANGE OPEN°F	CLOSE°F	DIFF°F	BRAND	OEM NO.
SAL105	Airflow Limit - Open on Rise	105	90	15	Janitrol	B1340104
SAL115	Airflow Limit - Open on Rise	115	100	15	Janitrol	B1340101
SAL120	Airflow Limit - Open on Rise	120	105	15	Janitrol	B1340102
SAL135	Airflow Limit - Open on Rise	135	120	15	GE	08-1912-00
						08-2399-00
						WP28X55
					Janitrol	B1340103
					TOD	312547
						313611

Direct Replacement Thermistors

PART NO.	DESCRIPTION	RANGE	BRAND	OEM NO.
TH7001	Thermistor	1K @ 70°F	Maytag	307208
TH7010	Thermister	10K @ 70°F	Maytag	306056

Deep Cup Limit Thermostats

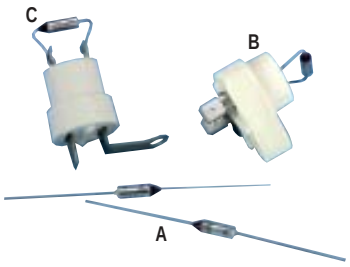
PART NO.	RANGE OPEN°F	CLOSE°F	DIFF°F	BRAND	OEM NO.
L135DC	135	120	15	Electrolux	5308013213
L145DC	145	125	20	Electrolux	5308015847
L210DC	210	170	40	Armstrong	01851A-025
					18J37
					1851A
					18J3701

*Use 60T Electrical Ratings Page 44

HVAC Flush Mount Staging Thermostats

PART NO.	DESCRIPTION	OPEN	CLOSE	DIFFERENTIAL
FL50	HVAC Staging Thermostat	50	35	15
FL60	HVAC Staging Thermostat	60	45	15

Thermostats



THERMODISC

Thermal Cut Outs

PART NO. 15 AMP SERIES 1	PART NO. 25 AMP SERIES 2	OPEN TEMP. °C	OPEN TEMP. °F	STYLE	PART NO. 15 AMP SERIES 1	PART NO. 25 Amp SERIES 2	OPEN TEMP. °C	OPEN TEMP. °F	STYLE
STC4162	STC8162	72	162	A	STC4378	STC8378	192	378	A
STC4170	STC8170	77	170	A	STC4358		184	363	A
STC4183	STC8183	84	183	A	STC4438	STC8438	226	438	A
STC4195		91	195	A	STC4468	STC8468	242	468	A
STC4199	STC8199	93	199	A	STC5257	STC85257	125	257	B
STC4208	STC8208	98	208	A	STC5283	STC85283	139	283	B
STC4220	STC8220	104	220	A	STC5300	STC85300	149	300	B
STC4228	STC8228	109	228	A	STC5333	STC85333	167	333	B
STC4242	STC8242	117	242	A	STC5377	STC85377	192	377	B
STC4250	STC8250	121	250	A	STC6257	STC86257	125	257	C
STC4257	STC8257	125	257	A	STC6283	STC86283	139	283	C
STC4283	STC8283	139	283	A	STC6300	STC86300	149	300	C
STC4300	STC8300	149	300	A	STC6333	STC86333	167	333	C
STC4333	STC8333	167	333	A	STC6377	STC86377	192	377	C

Series [1]Maximum Wattage 1800W @ 120V / 2400W @ 240
Series [2]Maximum Wattage 3000W @ 120V / 6000W @ 240

THERMODISC

Thermal Cut Outs

PART NO.	TERMINALS	°C	°F	STYLE	PART NO.	TERMINALS	°C	°F	STYLE
STF4170	QC. 1/4"	77	170	36T	STF4249B	QC. 3/16"	121	249	36T
STF4183	QC. 1/4"	84	183	36T	STF4262	QC. 1/4"	128	262	36T
STF4208	QC. 1/4"	98	208	36T	STF4291B	QC. 3/16"	144	291	36T
STF4221	QC. 1/4"	105	221	36T	STF4305	QC. 1/4"	152	305	36T
STF4230	QC. 1/4"	110	230	36T	STF4305B	QC. 3/16"	152	305	36T
STF4242	QC. 1/4"	117	242	36T					

**Maximum Wattage 1800W @ 120V / 2400W @ 240*

Exact Replacement Commercial Refrigeration Defrost Thermostats

Exact Replacement Commercial Refrigeration Defrost Thermostats

- Surface Mount
- Two wire heater limit 75°F - 40°F range

PART NO.	OPEN	CLOSE	MOUNT	REPLACES
SL5708	75°F	40°F	Flush	Bohn, Larkin, Chandler, Climate Control 5708L & 4752C

- Surface Mount
- Three wire fan and defrost terminator 55°F - 35°F range

PART NO.	OPEN	CLOSE	MOUNT	REPLACES
SL5709	55°F	35°F	Flush	Bohn, Larkin, Chandler, Climate Control 5709L & 4751C

- Tube Mount

PART NO.	OPEN	CLOSE	MOUNT	REPLACES
SL79002	55°F	30°F	Tube	Russell 103079002

- Surface Mount

PART NO.	OPEN	CLOSE	MOUNT	REPLACES
SL79005	65°F	30°F	Flush	Russell 103079005

THERMODISC

Flush Mount SPST Thermostats

PART NO.	DESCRIPTION	OPEN	CLOSE	DIFFERENTIAL	BRAND	REFERENCE
FL135	Flush Mount SPST	135	120	15	Whirlpool	295419
					Maytag	C2735801
FL15020	Flush Mount SPST	150	110	20	Maytag	302850
FL15040	Flush Mount SPST	150	110	40	Maytag	302850
FL155	Flush Mount SPST	155	125	30	Maytag	303036
						305865
FL190	Flush Mount SPST	190	180	10	Maytag	300858
FL200	Flush Mount SPST	200	160	40	Electrolux	5308015856
					Franklin	F136204
					Whirlpool	688474
FL205	Flush Mount SPST	205	165	40	Electrolux	5308013695
						5308950121
					Maytag	303396
						338471
						341196
					Whirlpool	279048
						660036
FL220	Flush Mount SPST	220	180	40	Maytag	301451
						303395
FL225	Flush Mount SPST	225	185	40	Maytag	62641
						510701
FL240	Flush Mount SPST	240	190	50	Maytag	305169
FL250	Flush Mount SPST	250	200	50	Electrolux	3204267
					GE	WE4X5137
					Maytag	348156
					Whirlpool	4451442
FL260	Flush Mount SPST	260	210	50	GE	WE4X5099
						WE4X5176
					Whirlpool	4452223
FL285	Flush Mount SPST	285	235	50	Electrolux	5303281113
FL320	Flush Mount SPST	320	270	50	Electrolux	5307531201
						7525560
FL350-50	Flush Mount SPST	350	300	50	Maytag	40113801

*Use 60T Electrical Ratings Page 44

Flush Mount SPDT Thermostats

PART NO.	DESCRIPTION	OPEN	CLOSE	DIFFERENTIAL	BRAND	REFERENCE
FLD135	Flush Mount SPDT	135	120	15	Maytag	61372M
						R099113
FLD205	Flush Mount SPDT	205	165	40	Whirlpool	279048
						341247
						660036

*Use 60T Electrical Ratings Page 44

SPDT Multi-Thermostats with heaters

PART NO.	DESCRIPTION	OPEN	CLOSE	DIFFERENTIAL	BRAND	REFERENCE
LD14520W	Multi-Temp SPST	145	125	20	Whirlpool	3398128
LD15510W	Multi-Temp SPST	155	145	10	Whirlpool	3387138
LD155W	Multi-Temp SPST	155	130	25	Whirlpool	3387134
LD290W	Multi-Temp SPST	290	250	40	Whirlpool	279054
						342763

*Use 60T Electrical Ratings Page 44

SFPC Freeze Protection Control

- Protects air conditioning evaporator coil from freezing.
- Opens 35°F/Close 50°F
- Fits 7/8" O.D. Tubing
- Replaces: Trol A Temp FPC
- Includes clip to fit 7/8" O.D. tubing

Thermostats

General Purpose
L & LD Series

- Open on rise
- Close when temperature differential is reached
- 1/4" quick disconnect terminals
- Use 60T Electrical Ratings Page 44

Applications

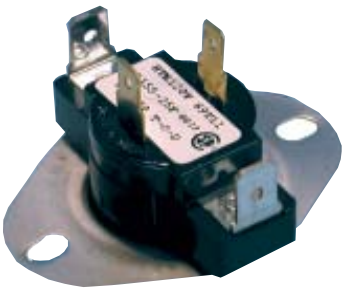
- Most home laundry dryers
- Fan and Limit Applications

THERMODISC

"L" Series , Single Pole - Single Throw

PART NO.	°DIFF.	OPEN (°F)	CLOSE (°F)	PART NO.	°DIFF.	OPEN (°F)	CLOSE (°F)
L120	10	120	110	L190	40	190	150
L125	10	125	115	L200	40	200	160
L130	15	130	115	L205	40	205	165
L135	15	135	120	L225	40	225	185
L140	20	140	120	L240	40	240	200
L145	20	145	125	L250	40	250	210
L150	20	150	130	L260	40	260	220
L155	20	155	135	L270	40	270	230
L160	20	160	140	L290	40	290	250
L165	20	165	145	L300	40	300	260
L170	20	170	150	L320	40	320	280
L175	20	175	155	L340	40	340	300
L180-20	20	180	160	FL225*	40	225	185
L180-40	40	180	140				

*Flush Mount



"LD" Series, Single Pole - Double Pole

PART NO.	DESCRIPTION	OPEN	CLOSE	DIFFERENTIAL
LD120	SPDT Thermostats	120	105	15
LD130	SPDT Thermostats	130	115	15
LD135	SPDT Thermostats	135	120	15
LD140	SPDT Thermostats	140	120	20
LD145	SPDT Thermostats	145	125	20
LD155	SPDT Thermostats	155	135	20
LD170	SPDT Thermostats	170	150	20
LD190	SPDT Thermostats	190	170	20
LD200	SPDT Thermostats	200	160	40
LD210	SPDT Thermostats	210	170	40
LD225	SPDT Thermostats	225	185	40
LD240	SPDT Thermostats	240	200	40
LD270	SPDT Thermostats	270	230	40
LD290	SPDT Thermostats	290	250	40
LD305	SPDT Thermostats	305	265	40

HA11

T1123

T1121

T1124

T1122

T1125

Terminal Adapters

PART NO.	DESCRIPTION	WHERE USED
HA-11	Large Flange / Airstream Adapter	60T to Oversize Flange
T1121	2 to 1 Terminal Adapter	1/4" Q.C. Female to 2 Male 1/4" Q.C. Chair Terminal
T1122	2 to 1 Terminal Adapter	1/4" Q.C.Female to 2 Male 1/4" Q.C. Side by Side Terminal
T1123	Screw to Terminal Adapter	8 - 10 Stud to 1/4" Q.C. Terminal
T1124	Terminal to Screw Adapter	1/4" Q.C. Female to Screw Right Angle Terminal
T1125	2 to 1 Terminal Adapter	1/4" Q.C. Female to 1/4" Q.C. Male Piggyback Terminal

Typical Electrical Ratings

36T Electrical Ratings

VAC	Resistive (Non-Inductive)	Motor Rating (Inductive) Full Load	Motor Rating (Inductive) Locked Rotor	Pilot Duty
120	15A	3A	12A	125 VA
240	10A	1.5A	6A	125 VA

350°F Max Ambient Temperature

60T Electrical Ratings

VAC	Resistive (Non-Inductive)	Motor Rating (Inductive) Full Load	Motor Rating (Inductive) Locked Rotor	Pilot Duty
120	25A	14A	72A	125 VA
240	25A	10A	60A	125 VA

350°F Max Ambient Temperature

SIG Series Furnace Igniters

Utilizing a spiral design, SUPCO's full line of igniters have greater physical strength and longer life. Including mounting hardware, where necessary, direct replacement of original equipment parts is easy (Including round and flat original parts). Choose the igniter for your application. For 115 - 120V applications.

SIG1000

SIG1000 Universal Hot Surface Igniter

By utilizing one of the two brackets included, the SIG1000 is designed to replace over 100 original part numbers. A replacement for Norton, Robertshaw, Rheem, Carrier and more.

- Large bracket used to replace 41-403, 41-407, 41-409
- Small bracket used to replace 41-402, 41-405, 41-410
- Easy installation
- Minimizes inventory

SIG1100

SIG1100 Series
Universal Round Furnace Igniter Kit

NEW

Designed to replace over 170 part numbers including Robertshaw, Norton and many other original equipment manufacturers.

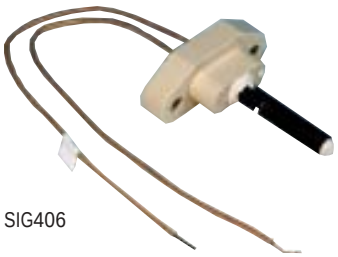
- Engineered Reaction Bonded Silicon Carbide Design
- Greater Physical Strength
- Lower Power Consumption
- Superior Gas Lighting Ability
- Easy Installation
- Minimizes Inventory

SIG102

SIG100 Series
Exact Replacement Hot Surface Igniters

- Replaces Exact OEM Hot Surface Igniters
- Highest density silicone carbide - greater physical strength
- Double helix spiral design - requires less current to light
- Easy installation - no modifications or adapters necessary

PART NO.	GEM PART NO
SIG100	IG100
SIG101	IG101
SIG102	IG102
SIG104	
SIG107	IG107
SIG108	IG108
SIG109	IG109



SIG406

SIG400 Series
Direct Replacement Hot Surface Igniters

- Strong design using more silicon carbide with deeper crystallization.
- Non-positional, double helix design – smoother ignition
- New slip fit kits, slide–in lock and go!

PART NO.	ROBERTSHAW PART NO.
SIG401	41-401
SIG402	41-402
SIG403	41-403
SIG405	41-405
SIG406	41-406
SIG407	41-407
SIG408	41-408
SIG1000	41-409
SIG410	41-410
	41-411
SIG414	

Igniter Facts and Fiction

Fact:	SUPCO's Igniters are made from high density silicon carbide. They are fragile and must be treated with care during installation.
Fiction:	Handling an igniter with bare hands will cause premature failure.
Fact:	Premature failure of an igniter can be caused by excess vibration, incorrect voltage or improper installation.
Fiction:	Round igniter designs cannot be used to replace flat igniters.
Fact:	By using proper mounting hardware, a round igniter can be used in place of an original flat igniter.
Fiction:	If the replacement igniter looks the same as the original, it will work in the application.
Fact:	Igniters differ in their ability to handle current (amps) and each is designed for a specific OEM application. Consult the cross reference information in this catalog sheet to identify the correct replacement.
Fiction:	Testing for a good igniter is done by measuring its Resistance (Ohms).
Fact:	The test of an igniter is done by measuring the current draw (amps) of the ignition circuit.
Fiction:	A visual inspection of an igniter will identify whether it is operable.
Fact:	Hairline cracks cannot be seen, and will cause improper operation of the igniter. It is recommended to use a current (amp) test.

Furnace Igniters

OEM Cross Reference for Furnace Igniters

OEM NO.	DIRECT REPL.	FUNCT. REPL.
American Road Equipment		
201W		SIG1000
Amana		
10735002	SIG102	SIG414
10041601		SIG414
767A-356		SIG414
B1336101		SIG414
B1336102		SIG414
B14010-15S		
D99182		SIG414
D9918201		SIG414
D9918202		SIG414
D9918202A		SIG414
R0156525		SIG414
R0157462		SIG414
American Appliance		
6901800	SIG406	
6903767	SIG406	
271B	SIG406	
American Water Heater		
6901800	SIG401	
6903767	SIG401	
6903768	SIG401	
Armstrong Air		
38322B001		SIG1000
Brant Radiant		
201D		SIG1000
Carrier / Payne / Day & Night / Bryant / BDP		
LH33ZS001A	SIG100	
LH33ZS002	SIG100	
LH33ZS003	SIG100	
LH33ZS004	SIG100	
Claire Bros		
C-238	SIG102	SIG1000
C-238-1	SIG102	SIG1000
C-242		SIG1000
C-263		SIG1000
Coleman		
1474-051		SIG1000
1474-052		SIG1000
1474-511	SIG102	SIG1000
1474-521	SIG102	SIG1000
Comfort Zone		
150114-04-01		SIG1000
Detroit		
201D		SIG1000
DMO Industries		
20834	SIG102	SIG1000
26789		SIG1000
Dornback		
271W		SIG1000
Ducane		
20015201	SIG100	
Enerco Tech		
10399		SIG1000
Evcon		
14740051		SIG1000
14740052		SIG1000
14740511	SIG102	SIG1000
14740521	SIG102	SIG1000
EZ-Flo		
62374	SIG107	
G.S.W.		
71082	GR412	
86483	GR412	
Gem Products		
SIG100	SIG100	
SIG1000		SIG1000
SIG101	SIG101	SIG1000
SIG102	SIG102	SIG1000
SIG104	SIG104	SIG1000
SIG106	SIG406	
SIG107	SIG107	
Giant Water Heater (Power Vent)		
56000125		SIG1000
Glow Core		
1950001	SIG406	
1950006	SIG104	SIG1000
HSRK7	SIG406	
Goodman / Janitrol		
10735002	SIG102	SIG414
10041601		SIG414
767A-356		SIG414
B1336101		SIG414
B1336102		SIG414
B14010-15S	SIG414	
B1401009		SIG107
D99182		SIG414
D9918201		SIG414
D9918202		SIG414
D9918202A		SIG414
R0156525		SIG414
R0157462		SIG414
Grimsby Stove		
ZCO-035	SIG102	SIG1000
H.B. Smith		
50018	SIG100	
Hupp Industries		
09050		SIG1000
ICP (International Comfort Products)		
1096047	SIG107	
Integra		
3260618	SIG402	SIG1000
6905032	SIG402	SIG1000
Intercity/Arco/Comfortmaker/ Heil/Heil-Quaker/ ICP Commercial/Tempstar		
1001344	SIG405	SIG1000
1009604	SIG107	
100-9980	SIG102	SIG1000
1096048		SIG414
1148245	SIG405	SIG1000
1096047	SIG107	
	SIG1000	
John Woods Power		
86483	GR412	
L.B. White		
120-07549	SIG100	
Lennox / Aire-Ease / American Air / Armstrong / Concord / Magic Chef		
33J3701		SIG1000
Lochinvar		
PLT2400	SIG104	SIG1000
PLT3400	SIG104	
	SIG1000	
Majestic		
75-92-104	SIG402	SIG1000
75-92-105	SIG402	SIG1000
201N	SIG402	SIG1000
201W	SIG402	SIG1000
Mor-Flo		
3200580	SIG402	SIG1000
3200618	SIG402	SIG1000
3210401	SIG406	
Nordyne / Frigidaire / Tappan / Philco / Intertherm / Miller		
902661	SIG101	SIG1000
902694	SIG101	SIG1000
9031100	SIG104	SIG1000
105141000		SIG1000
632-0770		SIG1000
632-0880		SIG1000
RH62286892	SIG102	SIG1000
RH62286893	SIG102	SIG1000
Norton		
101M	SIG409	SIG1000
101W		SIG1000
201	SIG403	SIG1000
201A	SIG401	
201D	SIG405	SIG1000
201J	SIG406	
201K	SIG402	SIG1000
201L	SIG402	SIG1000
201M	SIG406	
201N	SIG402	SIG1000
201P		SIG1000
201R		SIG1000
201W	SIG402	SIG1000
201Y	SIG406	
271	SIG403	SIG1000
271A	SIG401	
271B	SIG406	
271D		SIG1000
271J	SIG406	
271M	SIG406	
271N	SIG402	SIG1000
271P	SIG406	
271P	SIG405	SIG1000
271R	GR412	
271W	SIG402	SIG1000
271Y	SIG406	
501A	GR412	
Olsen Industries		
20834	SIG102	SIG1000
26789		SIG1000
Perfection Schwank		
108803-61	SIG406	
Polaris		
6901800	SIG401	
6903767	SIG401	
6903768	SIG401	
Raypak		
600915	SIG100	
Rheem (Water Heater)		
AP12553	GR412	
AP12554	GR412	
75-07-061	GR412	
Rheem / Corsair / Ruud / Weather King		
62-22441-01	SIG402	SIG1000
62-22441-01	SIG408	SIG1000
62-22441-01		SIG1000
62-22868-82		SIG1000
62-22868-92		SIG1000
62-22868-93	SIG406	
SP10972	SIG108	SIG1000
Roberts Gordon		
90434300		SIG1000
90436600	SIG402	SIG1000
Robertshaw / Eaton / Invensys		
41-238		SIG1000
41-242		SIG1000
41-401	SIG401	
41-402	SIG402	SIG1000
41-403	SIG403	SIG1000
41-405	SIG405	SIG1000
41-406	SIG406	
41-407	SIG407	SIG1000
41-408	SIG408	SIG1000
41-409	SIG409	SIG1000
41-410	SIG410	SIG1000
41-412	SIG107	
Snyder General		
1380654	SIG100	
1380672	SIG100	
1380680	SIG100	
Suburban		
10098002	SIG402	SIG1000
Superior Fireplace		
94851		SIG1000
Surface Igniter / Carborundum		
FC007	SIG101	SIG1000
FC035	SIG101	SIG1000
FC035 KI	SIG101	SIG1000
FC046	SIG102	SIG1000
FC046 KI	SIG102	SIG1000
FC047	SIG104	SIG1000
FC047 KI	SIG104	SIG1000
FC050		SIG1000
FC050 KI	SIG405	SIG1000
FC053	SIG401	
FC053 KI	SIG401	
FT001	SIG100	
FT001 KI	SIG100	
FY009	SIG406	
FY009 KI	SIG406	
Tappan (roof top system)		
632-320A		SIG1000
Trane / GE		
340039P01		SIG1000
B138196P01	SIG100	
B1446676P01		SIG1000
B144676P02	SIG100	
B340039P01		SIG1000
IGN21	SIG100	
IGN23		SIG1000
IGN26		SIG1000
IGN30		SIG1000
IGN34		SIG1000
KIT03033	SIG100	
Trianco / Heatmaster		
2400-048	SIG401	
2400-286	SIG401	
2600-359	SIG401	
3079-100	SIG401	
933-102	SIG401	
Viessman		
9302-083	SIG100	
9302-094	SIG100	
Wayne Home Equipment		
62821-001	SIG100	
62821-002	SIG100	
Weil Mclain		
511-330-139	SIG100	
511-330-188	SIG406	
511-330-190	SIG100	
511-330-193	SIG100	
White- Rogers		
767A-301	SIG100	
767A-303	SIG100	
767A-306	SIG100	
767A-309		SIG1000
767A-310		SIG1000
767A-311		SIG1000
767A-350	SIG100	
767A-353	SIG100	
767A-354	SIG100	
767A-356		SIG1000
767A-357	SIG100	
767A-361	SIG100	
767A-364		SIG1000
767A-365		SIG1000
767A-366		SIG1000
Williamson		
9050	SIG102	SIG1000
York / Borg Warner / Frazier-Johnson / Luxaire		
025-27766-000		SIG1000
025-27774-000	SIG100	
025-27776-000	SIG100	
025-29043-000	SIG100	
025-29050-000	SIG100	
025-32625-000	SIG102	SIG1000
025-32626-000	SIG102	SIG1000
373-05342-700	SIG102	SIG1000
373-09154-700	SIG102	SIG1000
473-12509-001	SIG102	SIG1000

SIG1100 Cross Reference - Also Replaces SUPCO SIG1000

Amana	Icp/Heil/	Rheem Rudd	Norton
10735002	Arco Aire	62-22868-93	101M
Arco Aire	Comfortmaker	62-22441-01	201D
See ICP	Tempstar	62-22868-82	201K
Armstrong	Keeprite	Roberts-Gordon	201L
38322B001	1096048	90434300	201M
Clare Bros.	1009604	90436600	201P
C238	1001344	Superior	201W
C238-1	1380680	Fireplace	271D
Coleman/Evcon	1148245	94851	271M
14740511	Integra	Trane	271N
14740512	6905032	3400339P01	271P
Detroit/	3260618	B340039P01	271R
Brant Radiant	Johnstone	B12996P01	271RS
201D	L37-699	B144676P01	271W
DMO/Olsen	L37-700	B144676P02	Robertshaw/
ECR Ind.	L37-812	B138196P01	Uniline
26789	L37-814	IGN21	41-238
20834	L37-815	IGN23	41-242
Dornback	L37-816	IGN26	41-402
271W	L.B. White Co	IGN28	41-403
Ducane	120-07549	IGN30	41-404
20015201	Lennox	IGN34	41-405
Enerco Tech.	33J3701	Viessmann	41-407
10399	Majestic	9302-093	41-408
Giant P.V.	75-92-104	9302-094	41-409
Water Heaters	75-92-105	Wayne Home	41-410
526000125	Metzger	Equipment	41-1090
526000025	201N	62821-001	Surface Igniter
Goodman/Janitrol	201W	62821-002	FC007
B1172606	Mor-Flo	Weil McLain	FC024
B1193939	3200618	29074	FC035
Grimsby Stove	Nordyne/Tappan	511-330-139	FC046
ZCO-350	Frigidaire/Philco	511-330-193	FC050
John Woods/	Intertherm/Miller	511-330-190	FC051
GSW P.V.	903110	Williamson	White-Rodgers
Water Heaters	105141000	09050	767A-301
86483	RH622286893	York	767A-303
H.B. Smith	632-0770	025-32626-000	767A-306
50018	632-0880	473-12509-001	767A-310
Hupp Ind	902661	373-09154-700	767A-311
9050	902694	025-27774-000	767A-350
903758	025-29043-000	767A-353	
632-3811	025-29050-000	767A-354	
632-3540	025-27766-000	767A-357	
Raypak	025-30277-000	767A-361	
600915	025-32638-002	767A-364	
025-32625-000	767A-365		
025-31801-000	767A-366		
373-05342-700	767A-370		
767A-371			
767A-372			

Furnace Igniter Electrical Specifications

PART NO.	SIC SERIES	STEADY STATE CURRENT	OHMS
SIG1000,SIG1100,SIG101,SIG102	FC	2.75 amps minimum @ 98 VAC	36 @ 98 VAC
SIG104,SIG106,SIG107,SIG108		3.0-3.36 amps @ 115 VAC	38-34 @ 115 VAC
SIG111,SIG112,SIG402,SIG403		4 amps maximum @ 132 VAC	33 @ 132 VAC
SIG405,SIG406,SIG407,SIG408			
SIG410,SIG412,SIG414			
SIG100	FT	2.3 amps minimum @ 98 VAC	43 @ 98 VAC
		2.5-3.0 amps @ 115 VAC	46-38 @ 115 VAC
		3.3 amps maximum @ 132 VAC	40 @ 132 VAC
SIG113	FF	2.3 amps minimum @ 98 VAC	43 @ 98 VAC
		3.0-3.6 amps @ 115 vac	38-34 @ 115 VAC
		4 amps maximum @ 132 vac	33 @ 132 VAC

Wall Thermostats

"Climate Technology Corporation"
A Hunter Fan Company

Thermostats...loaded with features, designed for value!

All CTC Thermostats Feature
User Friendly Programs and Features

- **Attractive Styling**
  Blends well in any residential application.
- **Overheat Protection**
  Prevents lock-up in the heat mode by not allowing heat to come on if temperature is over 95 degrees.
- **Static Protection**
  Handles electrical spikes of up to 20,000 volts that could otherwise damage the system.

Mechanical

All models offer our "quiet switching" mercury bulb design and require no additional sub-base for heating, cooling or heating/cooling installation. All deliver maximum performance at a value price! All Mechanical Thermostats have a one year warranty.


43004 – Horizontal


43005 – Vertical

Heating/Cooling Thermostats

43004 – Horizontal ●

43005 – Vertical

- For use with most 4 or 5 wire 24 VAC systems and single-stage heat pumps
- Adjustable heat anticipator
- Terminations: RC, RH, W, Y, G, O, B


43320 – Vertical

Cooling Only Thermostat

43320 – Vertical ●

- For use with most 2 wire 24 VAC systems
- Fixed cooling anticipator
- Terminations: RC, Y


43309 – Horizontal


43359 – Horizontal

Heating Only Thermostats

43309 – Horizontal ●

- For use with most 2 wire 24 VAC and millivolt systems
- Adjustable heat anticipator
- Terminations: RH, W

43359 – Horizontal

- 3 wire heat zone control
- Adjustable heat anticipator
- Terminations: R, Y, W

Digital

All CTC Digital and Programmable Thermostats

Feature:

- Latching relays for system compatibility
- Soft touch keypad
- Low battery indicator
- INDIGLO® Backlight
- Easy, front load battery access
- 2 AA batteries included
- F°/C° selector
- 3 year warranty

Are Compatible With:

- 24 VAC heat/cool, heat only or cool only systems
- Gas, electric or oil systems
- Millivolt systems
- 2 wire hydronic systems

(Not for use with 110/220V systems)

Have These Specifications:

- 20-30 VAC, 50/60 Hz
- Current draws 0.1 to 1.5 amps
- Temperature set range: 45° to 95°F (7° to 35°C)
- Operating differential +/- 1° F
- Compressor protection: 4 min. delay on break

Wall Thermostats

43054

For Single-Stage Heat Pumps with INDIGLO® night-light

Additional Features:
- Electronic digital accuracy
- Large, easy-to-read LCD
- Filter change indicator
- No programming required
- No leveling required

Additional Specifications:
- 43054 Terminations: RC/O, RH/B, Y, W, G, R
- Bimetal freeze protection

43058

43058

For Multi-Stage Heat Pump/ Conventional Two-Stage Heat/Cool Thermostat With Auto Season Changeover

43658

43658

Remote Sensor
(Sold Separately)

Additional Features:
- Energy Monitor
- Filter Monitor
- No programming required
- "System On" indicators
- Keyboard lock
- Auto heat recovery
- AC powered with 2 AAA battery backup
- Optional hardwire remote sensors (43658)

Additional Specifications:
- Display temperature limits: 40° to 95°F
- Terminations: R, Y1, Y2, W1, W2, E, O, B, G, L, C
- Remote Sensor Terminations: RS1+, RS1-, RS2+, RS2-

Also Compatible With Most:
- Two-stage heat pumps with 2 heat/2 cool
- Two-stage heat pumps with 2 heat/1 cool
- Single-stage heat pumps
- Conventional two-stage heat/cool systems (Not for use with 110V/220V systems)
- Multi-stage heat/cool

Programmable

43154

5 Day/2 Day Programming, 4 Periods Per Day For Conventional Heat/Cool or Single-Stage Heat Pump Systems

Also Compatible With Most:
- Single-stage heat pumps

Additional Features:
- Adjustable cycle rate
- Pre-programmed
- Easy "Front Load" battery access
- Mechanical low temperature protection
- Filter Monitor
- Up-opening door
- Two-stage low battery with fail safe protection

Additional Specifications:
- Terminations: G, RC, RH, Y/O, WB, Y1

43255

5 Day/1 Day/1 Day Programming, 4 Periods Per Day For Conventional Heat/ Cool or Single Stage Heat Pump Systems

Also Compatible With Most:
- Single-stage heat pumps

Additional Features:
- Adjustable cycle rate
- Pre-programmed
- Easy "Front Load" battery access
- Mechanical low temperature protection
- Filter monitor
- Up-opening door
- Two-stage low battery warning with fail safe protection

Additional Specifications:
- Terminations: G, RC, RH, Y/O, W/B, Y1

43355

7 Day Programming, 4 Programs Per Day

Also Compatible With Most:
- Single-stage heat pumps

Additional Features:
- Adjustable cyle rate
- Pre-programmed
- Easy "Front Load" battery access
- Energy and filter use monitors
- Up-opening door
- Daylight Savings key
- Temporary and vacation overrides
- Programmable Hold
- Home Today Override
- Two-stage low battery warning with fail safe protection

Additional Specifications:
- Terminations: G, RC, RH, Y/O, W/B, Y1

43503

7 Day Programming, 4 Programs Per Day With Auto Season Changeover

Additional Features:
- Auto Programming
- Keyboard lock
- Easy Front Load battery access
- Energy and filter use monitors
- Patented Home Today temporary override
- Vacation Hold override

Additional Specifications:
- Terminations: RC, RH, W, Y/Y1, G, O/B

Wall Thermostats

43558

43658

43558

7 Day Programming, 4 Programs Per Day For Multi-Stage Heat Pump/Conventional Two-Stage Heat/Cool With Auto-Season Changeover Thermostat

Also Compatible With Most:

- Two-stage heat pumps with 2 heat/2 cool
- Two-stage heat pumps with 2 heat/1 cool
- Single-stage heat pumps
- Conventional two-stage heat/ cool systems (Not for use with 110V/220V systems)
- Multi-stage heat/cool

43658 Remote Sensor (Sold Separately)

Additional Features:

- Energy Monitor
- "System On" indicators
- Keyboard lock
- Auto heat recovery
- Preprogrammed
- Filter Monitor
- Temporary/Vacation overrides
- Programmable Hold
- Home Today override
- Auto season changeover
- Optional hardwire remote sensors (43658)
- AC powered with 2 AAA battery backup

Additional Specifications:

- Terminations: R, Y1, Y2, W1, W2, E, O, B, G, L, C
- Remote Sensor Terminations: RS1+, RS1-, RS2+, RS2-

WE SELL ENERGY STAR

Mechanical

		Adjustable Heat Anticipator	Quiet Switching	Most Gas, Oil or Electric	24 VAC Nominal	MillivoIt	Terminals	Product Dimensions
43320	Vertical Cool Only		●		●		RC, Y	
43309	Horizontal Heat Only	●	●	●	●	●	RH, W	
43359	Horizontal Heat Zone Control		●	●	●	●	R, Y, W	
43004	Horizontal Heat/Cool	●	●	●	●		RH, RC, G, Y, W, O, B	1.57"D X 4.5"W X 3.32"H
43005	Vertical Heat/Cool	●	●	●	●		RH, RC, G, Y, W, O, B	1.57"D X 4.5"W X 3.32"H

Digital

		Large LCD Digital Accuracy	Easy to Read Display	Filter Change Indicator	F°/C° Readout	Battery Powered	Low Battery Indicator	No Leveling Required	Heat/Cool & Heat Only Systems	Terminals	Remote Sensor Terminals	Product Dimensions
43054	Electronic w/ INDIGLO® Night-Light	●	●	●	●	●	●	●	●	RC/O, RH/B, Y, W, G, R		1.125"D X 4.75"W X 4"H
43058	Digital Multi-Stage Heat Pump/ Conventional	●	●	●	●	Battery Backup	●	●	● G, L, C	R, Y1, Y2, W1, W2, E, O, B, RS2-	RS1+ RS1- RS2+	1.5"D X 7"W X 4.75"H

Programmable

		Program Flexibility	Programs Per Day	Preprogrammed	Auto Recovery	Filter Change Indicator	F°/C° Readout	Temporary & Vacation Overides	Home Today Override	Energy Monitor	Battery Powered	Heat/Cool or Heat Only	Keyboard Lock	Single-Stage Heat Heat Pump	Terminals	Remote Sensor Terminals
43154	Programmable w/INDIGLO® Night-Light	5+2	4	●	●	●	●	●			●	●		●	RC, RH, Y/O, W/B, Y1, G	
43255	Programmable w/INDIGLO® Night-Light	5+1+1	4	●	●	●	●	●			●	●		●	RC, RH, Y/O, W/B, Y1, G	
43355	Programmable w/INDIGLO® Night-Light	7	4	●	●	●	●	●	●	●	●	●		●	RC, RH, Y/O, W/B, Y1, G	
43503	Programmable w/AutoSeason Changeover	7	4	●	●	●	●	●	●	●	●	●	●	●	W, RH, RC, G, Y/Y1, O/B	
43558	Programmable Multi-Stage Heat Pump/ Conventional	7	4	●	●	●	●	●	●	●	Battery Backup	●	●	●	R, Y1, Y2, W1, W2, E, O, B, G, L, C	RS1+ RS1- RS2+ RS2-

Thermostat Guards

SUPCO offers a complete line of metal and plastic thermostat guards for the HVAC industry. Manufactured with the highest quality materials and production standards to ensure rugged dependability and attractive appearance.

Metal Thermostat Guards
- 18-22 Gauge Steel
- Baked Enamel Finish
- Louvered Cover
- Maximum Protection

Plastic Thermostat Guards
- Hi-Impact Plastic
- Clear
- Opaque
- Bronze

All Models
- Locking Key
- Mounting hardware
- Vertical or Horizontal Mounting

Designer Series
BTG-DK

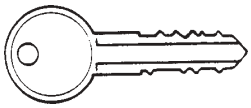
Universal Series
BTG-UO2

Elite Series
BTG-EK

Classic Series
BTG-O

Regal Series
BTG-RK

Sentinal Series
BTG-54VL



F336

SERIES	DESCRIPTION	INSIDE DIMENSIONS SOLID BASE (H x W x D)	INSIDE DIMENSIONS RING BASE (H x W x D)
Designer			
BTG-DK	Clear Plastic	4 1/4" x 7 5/8" x 2 1/8"	4 1/8" x 7-1/16" x 2-1/4"
BTG-DB2	Bronze Plastic	4 1/4" x 7 5/8" x 2 1/8"	4 1/8" x 7-1/16" x 2-1/4"
BTG-DO	Opaque Plastic	4 1/4" x 7 5/8" x 2 1/8"	4 1/8" x 7-1/16" x 2-1/4"
Universal			
BTG-UK2	Clear Plastic	8 1/4" x 5 3/8" x 3 1/2"	8 1/8" x 4 5/8" x 3-5/8"
BTG-UB2	Bronze Plastic	8 1/4" x 5 3/8" x 3 1/2"	8 1/8" x 4 5/8" x 3-5/8"
BTG-UO2	Opaque Plastic	8 1/4" x 5 3/8" x 3 1/2"	8 1/8" x 4 5/8" x 3-5/8"
BTG-UM	Metal	8 1/4" x 5 3/8" x 3 1/2"	*
BTG-UWM	Metal	*	6 3/4" x 4 1/4" x 3 9/16"
Elite			
BTG-EK	Clear Plastic	3 7/8" x 3 1/2" x 2 1/2"	*
BTG-EO	Opaque Plastic	3 7/8" x 3 1/2" x 2 1/2"	*
BTG-EM	Metal	3 7/8" x 3 1/2" x 2 1/2"	*
Classic			
BTG-K	Clear Plastic	5 1/4" x 4 3/8" x 3"	5 1/4" x 4 5/8" x 3 1/4"
BTG-O	Opaque Plastic	5 1/4" x 4 3/8" x 3"	5 1/4" x 4 5/8" x 3 1/4"
BTG-KM	Metal	5 1/4" x 4 3/8" x 3"	*
BTG-KWM	Metal	*	5 1/4" x 4 5/8" x 3 1/4"
Regal			
BTG-RK	Clear Plastic	6 3/8" x 3 1/2" x 3"	6 3/8" x 3 1/2" x 3 1/4"
BTG-RB2	Bronze Plastic	6 3/8" x 3 1/2" x 3"	6 3/8" x 3 1/2" x 3 1/4"
BTG-RO	Opaque Plastic	6 3/8" x 3 1/2" x 3"	6 3/8" x 3 1/2" x 3 1/4"
BTG-RM	Metal	6 3/8" x 3 1/2" x 3"	*
BTG-RWM	Metal	*	6 3/8" x 3 1/2" x 3 1/4"
Sentinal			
BTG-54VL	Metal Hinged	6 1/4" x 4 1/4" x 3 1/8"	*
BTG-54VLW	Metal Hinged	*	6" x 3 3/4" x 3 1/8"
F336	Replacement Key	Fits All Models	