



**ServiceMaster DSI**  
 2400 Wisconsin Ave, Downers Grove, IL 60515  
 1-800-954-9444  
 www.ServiceMasterDSI.com

## 30 TON RENTAL A/C UNIT WITH HEAT



### General:

CAT / CLASS	XXXXX
Manufacturer	Smart Family of Cooling Products
Unit Model Number	SACP30A-HS
Equipment Insurance Value	N/A
Duct/Hose Connections	(2) 20" Supply / (3) x 20" Return
Blower motor	15hp
Filter Size	Qty (1) 24"x16", (1) 20"x16", (2) 20"x20"
Filter Type	2" Washable Media

### Dimensions:

Length (Base)	97"
Width	72"
Height	98.25"
Unit Weight (Estimated)	5,000 Lbs.
Compressor type	Scroll
POE Oil Charge	2.39 Gallons
Refrigerant	R410
Refrigerant charge	48.5 Lbs

### Electrical:

Certification	ETL, UL 1995 – CSA 236 STD 22.2
Single Point Power Supply	460V/3PH/60HZ
Connections	Single point Series 16 Cam-Lok connections
Cooling only Full Load Amps	62.8 A (460V)
Heating only Full Load Amps	97.3 A (460V)
DH mode Full Load Amps	102.8 (unit name plated FLA)
Unit MCA	122 A
Unit MFS	160 A



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### Product Data

#### Unit Features:

- Single 30hp Scroll Compressor
- Direct drive high static plenum fan with 15hp TEFC motor
- Maximum rated static pressure of 8.0 in-wg
- Rated cooling air flow of 10,000 cfm with recirculating air
- Air flow range of 4,500 – 14,500 cfm
- Hydrophilic coated, non-lanced condenser fins
- Hydrophilic coated evaporator fins
- Stainless steel hardware
- Stainless Steel drain pan
- Unit capable of operating between +35°F - 105°F ambient temperatures
- Permanently installed drain pan P-trap (protected within unit base)
- Unit heat package:
  - 2 Independent stages, 64KW total
    - 32KW stage 1
    - 32KW stage 2
  - Stainless steel sheathed, hermetically sealed, finned tubular heating elements

#### Package Features:

- Phase monitor and Incorrect phase indicator light (red)
- Circuit Breakers on all motors
- Blower VFD with inline starter and bypass switch
- Speed Potentiometer for Blower VFD to adjust speed from 30Hz to 69Hz
- High and low pressure safety switches
- R-410a refrigerant
- Full tubular rental frame with fork pockets & tie-down points
  - Hot-dipped galvanized
- Overhead certified lift frame
- Entering and leaving air temperature sensors
- Unit can run in COOLING/HEATING or DH modes
  - Cooling unit may run in HAND (manual) MODE or LOCAL (via PLC control) MODE
    - Unit can control off supply or return air temperature via RS/SA switch
  - In DH mode both stages of cooling and 1 stage heat may operate simultaneously
- Duct Doors factory installed for all supply/return connections
- Quiet operation



## 30 TON RENTAL A/C UNIT WITH HEAT Operator Panel Procedure For Customers

### STEP 1

Confirm that circuit breaker (8CB) is switched ON and CONTROL POWER pushbutton light (1PL) is lit.

- If not, check phase monitor relay (PMR) and emergency stop (ES) button.
- If INCORRECT POWER pushbutton light (2PL) is lit, check PMR for phase rotation and voltage setting.

### STEP 2

Turn ON AIR FLOW switch (1SW).

### STEP 3

Turn BLOWER switch (2SW) to require blower operating mode.

- VFD RUNNING pushbutton light (3PL) lit if blower is started using VFD.
- BYPASS RUNNING pushbutton light (5PL) lit if blower is started using bypass starter.
- Check blower circuit breaker overload (4OL) or VFD status if BLOWER TRIP pushbutton light (4PL) is lit.

### STEP 4

Set blower running speed using SPD ADJ POT (potentiometer)

### STEP 5

Cooling probe selection switch (4SW) and heating probe selection switch (8SW)

- Turn 4SW to RA - Cooling is based on return air control.
- Turn 4SW to SA - Cooling is based on supply air control.
- Turn 8SW to RA - Heating is based on return air control.
- Turn 8SW to SA - Heating is based on supply air control.

### STEP 6

Turn OFF/CLG/HTG/DH switch (5SW) to require unit operating mode.

- Turn 5SW to OFF - Unit is switched off.
- Turn 5SW to CLG - Unit is running in cooling mode.
- Turn 5SW to HTG - Unit is running in heating mode.
- Turn 5SW to DH - Unit is running in dehumidification mode.

### STEP 7

Turn OFF/LOCAL/HAND/REMOTE switch (3SW and/or 6SW & 7SW) to require compressor and/or heater operating mode.

- OFF - Switched off.
- LOCAL - Operating with local controller.
- HAND - Operating in manual mode without the controller (manual on).
- REMOTE - Operating in remote mode without the controller (on/off by remote thermostat)

## 30 TON RENTAL A/C UNIT WITH HEAT

### Unit Settings & Safeties:

TAG	SERVES	FLA/MCA	SETTINGS: (460/3/60)
9CB	Main CB	102.8/122	160
1CB	Compressor CB	37.8	50
2CB	Condenser Fans CB	8.4	13
3CB	Blower CB	17.3	25
8CB	Trans CB	1.1	6
4CB	Stage 1 Heat CB	40	50
5CB	Stage 2 Heat CB	40	50
1HP	High Pressure Trip	560# / manual reset	
2 HP	Fan Stage 1	350# / 55# differential	
3 HP	Fan Stage 2	400# / 55# differential	
1LP	Low Pressure Trip	65# / 40# differential	
PMR	Phase Monitoring	460V / 3% UNBAL 1 sec FAULT DELAY / 100 sec RESTSTART DELAY	
AFS, CUH, HTL1, HTL2, HTL3	Heat Safeties	AFS - Differential (0.5") CUH - 140F / Manual reset HTL1 & 2 356F /Manual reset HTL3 180F - Automatic reset	

### Unit Drawings:

