

# Split Systems Single Phase Series

## GENERAL

temperzone offer a comprehensive range of single phase split system heat pumps commonly used in light commercial and residential applications. A proven system easy to install and of local manufacture providing long-term local service and parts availability.

## Application

The temperzone single phase, split system range is uniquely versatile providing, through many options, greater flexibility in air conditioning design and application.

The outdoor condensers are available in both vertical and horizontal discharge, can be roof, platform, wall or garden mounted, and are available in a wide variety of performance capacities including a choice of single or dual circuit models.

The indoor evaporator range of options further enhances design and application flexibility by providing a variety of ducted and direct blow in-room console models which are floor, wall or ceiling mountable.

By utilising the dual circuit SCR 2/250 outdoor condenser in conjunction with a wide variety of single and tandem indoor evaporator options, a designer can realise the maximum possible output from a single phase installation particularly where a three phase system is impracticable.

Additionally, higher capacity three phase split system models are also available for larger commercial and industrial projects.

## OUTDOOR UNITS

### Standard equipment

1. Compressor or compressors.
2. One propeller outdoor fan.
3. Compressor crankcase heaters.
4. Outdoor fan guard.
5. Capillary tubes and check valves.
6. High and low pressure switches.
7. Reversing valves.
8. Timer/temperature de-ice controls.
9. Suction accumulators
10. Enclosed compressor compartment.

### Optional equipment

Low ambient booster heater.  
Fan speed controller (see Data sheet pamphlet No. 172 - 801)

### Outdoor Fan

A propeller type is fitted in all models with a 6 pole 1 phase P.S.C. motor.

### Cabinet

Constructed from highest grade galvanized steel - primed and finished in polyester powder coat - protecting the unit whatever the climate.

## Outdoor Coil

Single or two row coil with aluminium fins mechanically expanded to 9.5mm dia copper tubes.

Outdoor Condenser Models	Face Area m <sup>2</sup>	Fins per m	Coil Rows
EC 225	0.496	600	2
SCR 150	0.496	600	1
SCR 250	0.496	600	2
SCR 2/250	0.992	600	2

## Compressor

The compressors are of the fully hermetic type suction cooled with internal protection, two cylinder 2900 rpm direct drive. Up to date design includes internal muffler, and an internal thermostat built into the motor windings for accurate sensing of motor temperature.

The internal thermostat provides fully inherent protection of the compressor motor.

The compressor is internally spring mounted and externally supported through rubber mounts.

## Refrigeration System

The refrigeration systems include suction accumulator for protection against liquid slugging, high and low pressure switches with manual reset on the high pressure, capillaries strainer and check valve sets, reversing valves and compressors which are fitted with crankcase heaters. Time / temperature de-ice controls are fitted as standard. Every 33 minutes the outdoor coil will de-ice if necessary, to maintain efficient operation. Its function is to allow the maximum heat recovery from low ambient temperature with minimal ice formation on the coil.

The SCR/EC outdoor units are shipped from the factory with each system fully charged with R22. Liquid and suction line valves with flare connections are provided. The indoor units are shipped with holding charge only.

## Wiring

A control panel is located in the outdoor unit and is fully wired ready to accept the mains. The standard electric supply required is single phase, 240 volt, 50 cycle with neutral and earth.

The standard unit contains control fuses.

## KEY TO MODEL CODES

C = Console (indoor unit) or  
C = Condenser (outdoor unit) or  
CC = Concealed Console  
D = Ducted

## INDOOR UNITS

The temperzone evaporators are designed to meet every application - hideaway or ducted ceiling, cupboard or consoles.

### Cabinet

DSEER and HSER units are constructed from highest grade galvanized steel, draintrays protected with bitumatic coating.

CCER units are constructed from highest grade galvanized steel and finished in powder coat.

CSER and SER units are constructed from highest grade galvanized steel with the outer cabinet finished in powder coat with finished customwood sides.

### Fan and Motor

The evaporator units are fitted with dynamically balanced, double inlet, double width, forward curved centrifugal fans powered by a multi-speed, direct drive, single phase resilient mounted P.S.C. motor.

### Indoor Coil

The evaporators have a multi row coil with aluminium fins mechanically expanded to copper tube.

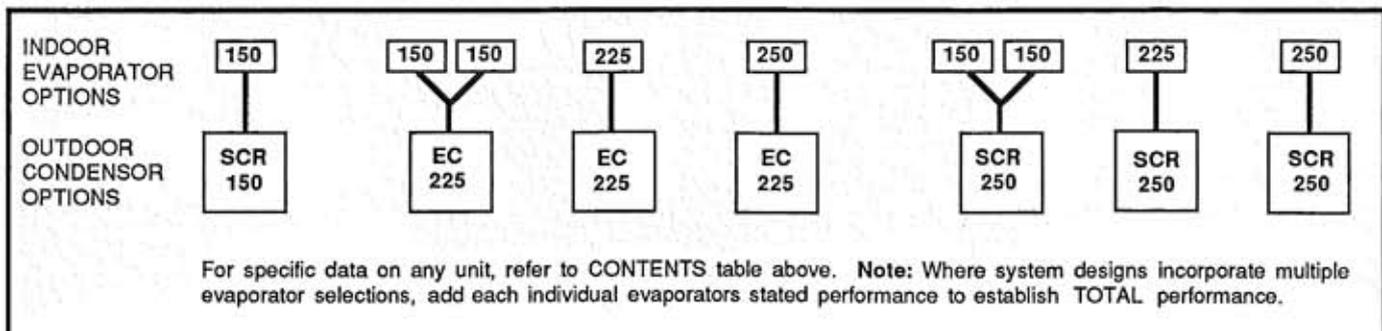
Indoor Evaporator Models	Face Area m <sup>2</sup>	Nominal Airflow l/s	Fins per m	Coil Rows
DSEER 225	0.227	370	400	4
DSEER 250	0.293	740	400	4
DSEER 2/250	0.289	650	560	4
CCER 225	0.230	350	400	4
HSER 150	0.146	220	400	4
HSER 225	0.211	300	400	4
SER 150	0.146	210	400	4
SER 225	0.211	230	400	4
CSER 150	0.215	220	400	3
CSER 225	0.211	260	400	4

## CONTENTS

Model	Pages	Model	Pages
DSEER 225	4, 12	SER 225	10, 15
DSEER 250	5, 12	CSER 150	11, 15
DSEER 2/250	6, 13	CSER 225	11, 15
CCER 225	7, 13	EC 225	16
HSER 150	8, 14	SCR 150	16
HSER 225	9, 14	SCR 250	16
SER 150	10, 15	SCR 2/250	16

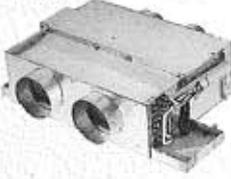
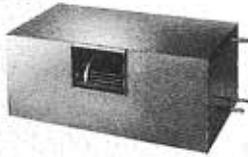
## SINGLE PHASE SPLIT SYSTEM COMBINATIONS

## PLUS . . .

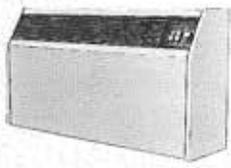
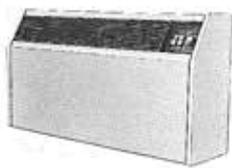


150	225	250	2/250
-----	-----	-----	-------

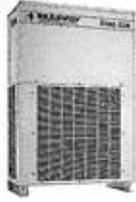
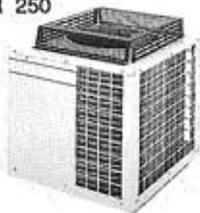
**DUCTED EVAPAPORATOR OPTIONS**

<p>HSER 150</p> 	<p>DSER 225</p>  <p>HSER 225</p>  <p>CCER 225</p> 	<p>DSER 250</p> 	<p>DSER 2/250</p> 
---	---	--	---

**DIRECT ROOM EVAPAPORATOR OPTIONS**

<p>SER 150</p>  <p>CSER 150</p>  <p>*</p>	<p>SER 225</p>  <p>CSER 225</p> 		
--	---	--	--

**OUTDOOR CONDENSERS OPTIONS**

<p>SCR 150</p> 	<p>EC 225</p> 	<p>SCR 250</p> 	<p>SCR 2/250</p> 
--	---	---	--

**... POWERFUL SINGLE PHASE TWIN CIRCUIT SCR 2/250 DESIGNS**

