

LENNOX

CHP15 SERIES

AIR-TO-AIR HEAT PUMPS

NOMINAL COOLING RANGE 6 to 16kW
HEATING RANGE 6 to 16kW

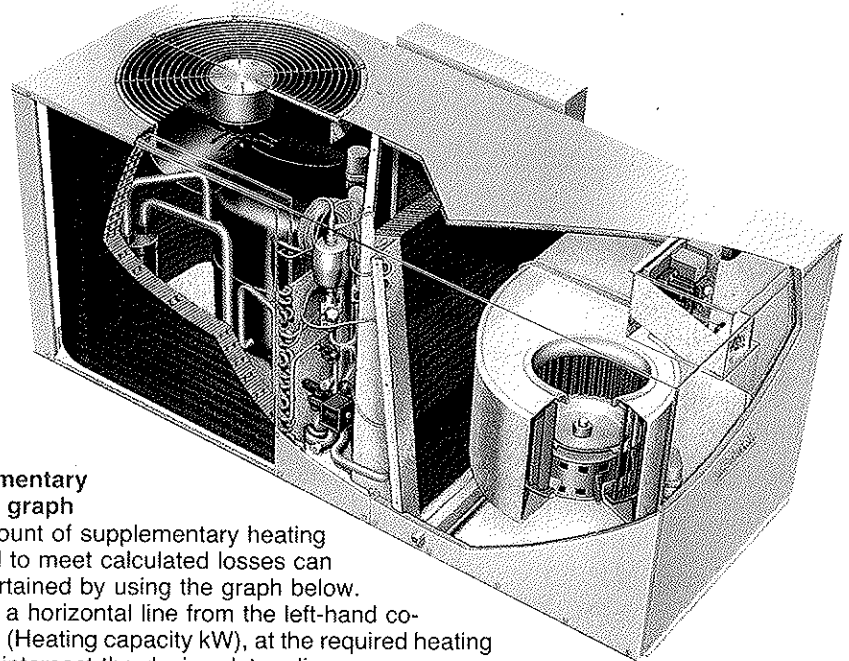
These are complete, high-quality reversible heat pumps suitable for small to medium commercial applications. CHP heat pumps incorporate many standard features (see below) which are frequently offered as optional extras by other manufacturers.

Standard features

- Copper tube coils.
- Fully hermetic compressor.
- Crankcase heater.
- Heavy duty reversing valve.
- Flow control valve.
- Suction line accumulator.
- High capacity drier.
- Clock timer defrost.
- High pressure switch.
- Defrost control.
- Multi-speed blower motor.

Optional equipment

- Heat-cool thermostat with emergency heat sub-base.
- Electric heat.
- Timed off control.
- Economiser.
- Duct enclosure for conversion to vertical air handling.
- Roof mounting frame.
- Status panel.
- Low ambient control.
- Outdoor air dampers.
- Flexistat programmable control.



Supplementary heating graph

The amount of supplementary heating required to meet calculated losses can be ascertained by using the graph below.

1. Draw a horizontal line from the left-hand co-ordinate (Heating capacity kW), at the required heating load, to intersect the design datum line.
- Should the design temperature be other than -1°C draw a new datum line.
2. To check that the balance point is at or below the recommended 6°C , which is considered suitable for most applications, draw a diagonal line from the inside design temperature mark (21°C) to this intersection of the datum line.
- The balance point is where the diagonal intersects the heat pump capacity curve.
3. The supplementary heating required is represented by the difference between the intersection of the datum line by 1) the horizontal heating load line and 2) the heat pump capacity curve – as read off the left-hand co-ordinate.

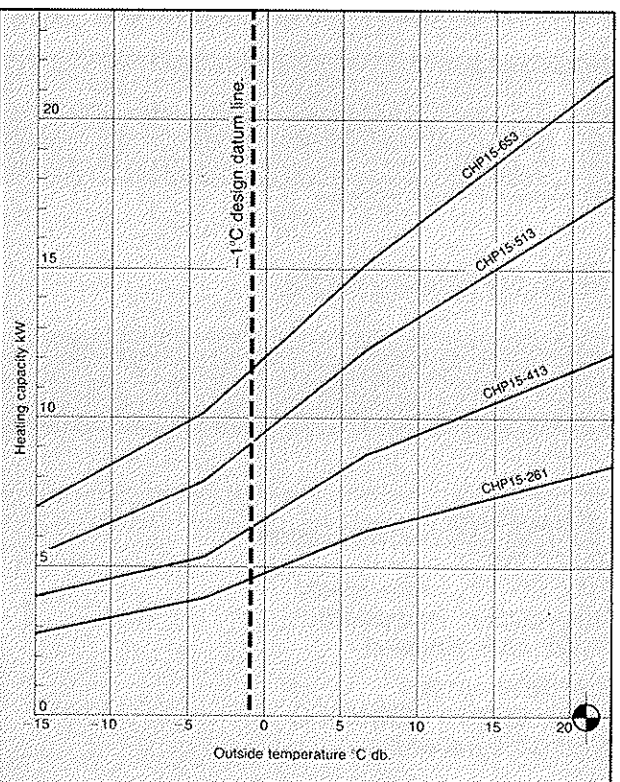
Selector

Model number	CHP15-261	CHP15-413	CHP15-513	CHP15-653
Total cooling capacity* kW	6.2	9.4	12.9	15.9
Dehumidifying capacity	24%	20%	22%	25%
Heating output @ $+8.3^{\circ}\text{C}$ (kW)	6.2	9.1	12.7	15.6
Heating output @ -1°C (kW)	4.5	6.5	9.0	11.5
Outdoor coil air volume (m^3/s)	0.865	1.100	1.690	1.690
Condensate drain size m.p.f. (in)	$\frac{3}{4}$	$\frac{3}{4}$	$\frac{3}{4}$	$\frac{3}{4}$
Net weight basic unit (kg)	122	183	240	245
Optional electric heat model no. Electric heat capacity (kW)	ECB18-5.0-15.0	ECB18-9.5-19.0	ECB18-9.5-23.0	ECB18-9.5-23.0
Optional roof mounting frame (kg)	RMF15-46 (46)		RMF15-65 (49)	
Optional Economiser damper (kg)	REMD15-46 (47)		REMD15-65 (62)	
Optional horizontal Economiser damper (kg)	EMDH15-46 (40)		EMDH15-65 (62)	
Optional duct enclosure (kg)	RDE15-46 (29)		RDE15-65 (44)	
Optional filter section (kg)	FS15-46 (5)		FS15-65 (20)	
Optional outside air damper (kg)	OAD15-46 (6)		OAD15-65 (10)	
Optional gravity exhaust dampers (kg)	GED15-46 (2)		GED15-65 (3)	
Optional side-by-side to over-under duct transition (kg)	DT15-46 (21)		DT15-65 (55)	
Optional ceiling diffusers	step down (kg)	RTD9-65 (30)		RTD9-65 (30)
	flush (kg)	FD9-65 (17)		FD9-65 (17)

*Rated at 60 l/s evaporator air volume per kW of cooling, 35°C outdoor air temperature, 27°C dry bulb and 19.4°C wet bulb entering evaporator air.

lower performance

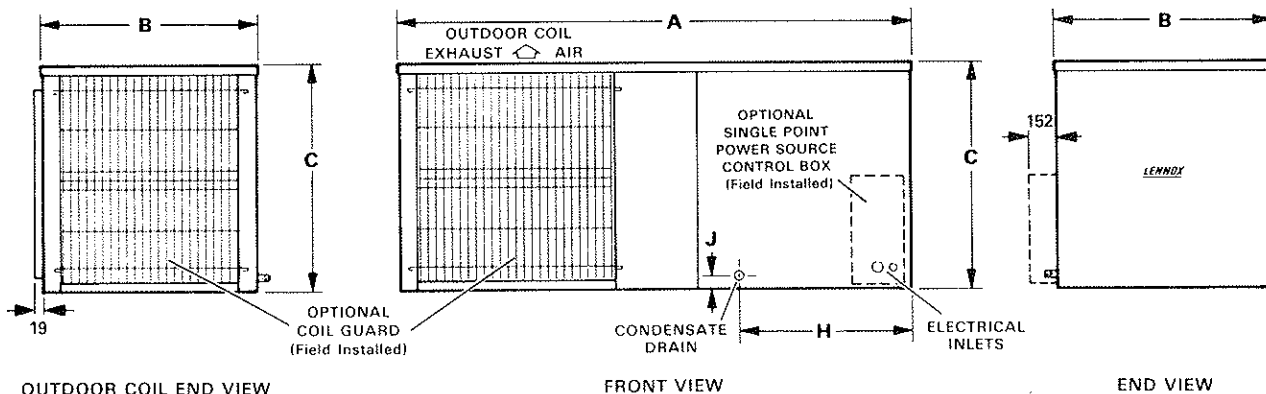
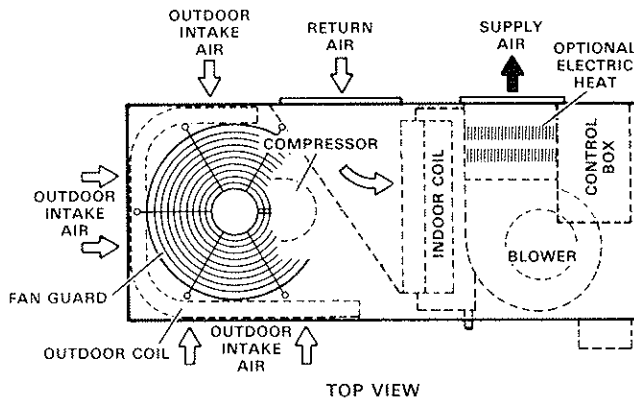
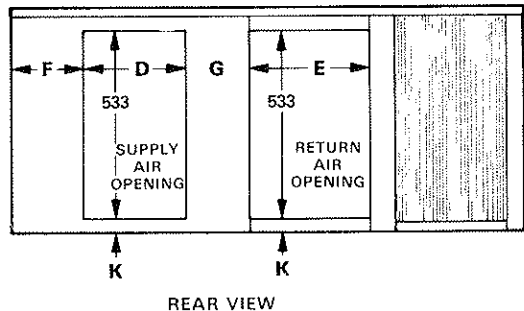
Model number	Nominal motor output		Minimum air at external static pressure		Maximum air at external static pressure	
	(kW)	(hp)	(m^3/s)	(Pa)	(m^3/s)	(Pa)
CHP15-261	0.249	$\frac{1}{3}$	0.255	150	0.645	0
CHP15-413	0.373	$\frac{1}{2}$	0.395	150	0.790	0
CHP15-513	0.373	$\frac{1}{2}$	0.640	175	0.965	0
CHP15-653	0.373	$\frac{1}{2}$	0.640	175	0.965	0



SINGLE PACKAGE AIR CONDITIONING

Dimensions – mm

Note. If optional accessories are required consult Engineering Handbook data sheet.



Note; Allow a further 356 mm to height for roof mounting frame if used.

Model number	A	B	C	D	E	F	G	H	J	K
CHP15-261	1454	610	641	348	341	222	122	492	35	41
CHP15-413	1530	781	714	348	338	222	122	538	38	41
CHP15-513-653	1778	940	879	391	440	197	132	560	54	137

Installation clearances (Note. Leave top unobstructed)

Model number	CHP15-261			CHP15-413			CHP15-513			CHP15-653		
	Ends	Front	Rear	Ends	Front	Rear	Ends	Front	Rear	Ends	Front	Rear
Basic unit	914	305	914	914	305	914	914	305	914	914	305	914
with REMD15	914	1123	914	914	1123	914	914	1123	914	914	1123	914
with EMDH15*	914	1432	914	914	1432	914	914	1432	914	914	1432	914

*Allow space to make duct connection.

Electrical data

Model number	CHP15-261	CHP15-413	CHP15-513	CHP15-653
Line voltage and phase 50 Hz	220/240 – 1ph		380/420 3-phase with neutral	
Unit maximum starting current (A)	59.2	42.3	52.8	72.8
Unit maximum running current (A)	13.9	9.9	12.4	15.4

LENNOX Industries Limited

P.O. Box 43, Lister Road,
Basingstoke, Hampshire,
RG22 4AR, England.

Tel: 0256 461261
Telex: 858675 LENNOX G
Fax: 0256 840487

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