

## *Enthalpy*

### Hermetic Flat Base Condensing Units

#### Standard Fitted Features:

- Copeland CS Compressors with Oil Sight Glass
- Crankcase Heater
- Rotalock Valves
- HP/LP Control
- Gomax Flexible Control Hoses
- Liquid Line Drier & Sight Glass
- Oil Separator (Pre-charged with POE Oil)
- Liquid Receiver
- Galvanised Black Powder Coated Unit Base
- **Supercoat** Condenser Treatment (5000 Hour Salt Spray Test)
- ebmpapst Condenser Fans
- Saginomiya Condenser Fan Speed Controller (Not available for CS10100A1 Units)
- 3PH Contactor & Electronic Motor Protection Relay
- Phase Loss & Phase Imbalance Protection
- Pre - Wired Back to Junction Box
- 1.22mm (18G) Interconnecting Copper Pipe Work
- Nitrogen Holding Charge



#### Options

- Suction Accumulator (Not available for CS10100A1 Units)
- Unit Weather Cover (knockdown form)



# ENTHALPY HERMETIC CONDENSING UNITS

## R404a (R507) – Hermetic Flat Base Condensing Units

Airefrig Part Number	H/P (Nominal)	Displ cm <sup>3</sup> /r	Ambient Temp °C	Refrigeration Capacity Watts						
				Evaporating Temperature °C						
				-30	-25	-20	-15	-10	-5	0
<b>CS10100A1</b> (Single Phase)	1.30	38.1	32	-	-	-	2275	2843	3470	4142
			38	-	-	-	1897	2402	2932	3503
			43	-	-	-	1588	2046	2523	3033
<b>CS14260A1</b> (Single Phase) <b>CS14260A3</b> (Three Phase)	2.00	48.6	32	1418	1951	2601	3320	4115	4931	5761
			38	1171	1648	2230	2873	3562	4279	4987
			43	969	1399	1921	2498	3114	3744	4360
<b>CS18260A1</b> (Single Phase) <b>CS18260A3</b> (Three Phase)	2.50	61.4	32	1606	2277	3086	3984	4967	5977	7003
			38	1325	1885	2588	3377	4258	5170	6098
			43	1124	1590	2197	2897	3681	4503	5336
<b>CS20260A4503</b> (Three Phase)	3.00	74.3	32	1939	2757	3291	4530	5622	6904	8050
			38	1475	2233	2997	3847	4777	5879	6881
			43	1088	1803	2501	3246	4111	5107	5996
<b>CS2736053</b> (Three Phase)	3.50	92.4	32	2500	3447	4587	5862	7273	8770	10294
			38	2005	2837	3848	4982	6238	7570	8935
			43	1629	2367	3268	4274	5403	6594	7814
<b>CS3336053</b> (Three Phase)	4.00	106.2	32	3054	4159	5360	6713	8227	9955	11815
			38	2517	3466	4507	5697	7052	8597	10299
			43	2088	2907	3813	4865	6082	7459	9048

Nominal ratings should be used as a guide, based on 18 degree Celsius return vapour and inherent liquid subcooling.

Note: Fan speed controller is set for continuous running @ low speed, select fan OFF option at low speed in low ambient applications to prevent over condensing.

### Standard Fitted Features:

- Copeland Compressor with Oil Sight Glass
- Crankcase Heater
- Rotolock Valves
- HP/LP Control
- Gomax Flexible Control Hoses
- Liquid Line Drier & Sight Glass
- Oil Separator (Pre-charged with POE Oil)
- Liquid Receiver
- Galvanised Black Powder Coated Unit Base
- **Supercoat** Condenser Treatment (5000 Hour Salt Spray Test)
- ebmpapst Condenser Fan - Single Phase
- Saginomiya Condenser Fan Speed Controller (Not available for CS10100A1 Units)
- 3PH Contactor & Electronic Motor Protection Relay
- Phase Loss & Phase Imbalance Protection
- Pre - Wired Back to Junction Box
- Nitrogen Holding Charge

#### Options:

- Suction Accumulator (factory fitted) (Not available for CS10100A1 Units)
- Unit Weatherproof Cover (knockdown form)



# ENTHALPY HERMETIC CONDENSING UNITS

## R134a – Hermetic Flat Base Condensing Units

Airefrig Part Number	H/P (Nominal)	Displ cm <sup>3</sup> /r	Ambient Temp °C	Refrigeration Capacity Watts					
				Evaporating Temperature °C					
				-15	-10	-5	0	+5	+10
<b>CS10100A1</b> (Single Phase)	1.30	38.1	32	1322	1763	2187	2734	3309	4037
			38	1103	1493	1851	2315	2804	3421
			43	924	1270	1591	2002	2423	2956
<b>CS14260A1</b> (Single Phase) <b>CS14260A3</b> (Three Phase)	2.00	48.6	32	1926	2551	3106	4032	4878	5951
			38	1666	2208	2979	3291	3982	4858
			43	1449	1930	2358	2877	3482	4248
<b>CS18260A1</b> (Single Phase) <b>CS18260A3</b> (Three Phase)	2.50	61.4	32	2310	3078	3765	4622	5592	6822
			38	1958	2639	3257	4024	4869	5941
			43	1680	2282	2836	3521	4261	5198
<b>CS20260A4503</b> (Three Phase)	3.00	74.3	32	2627	3485	4349	5313	6431	7846
			38	2231	2961	3703	4541	5495	6703
			43	1882	2548	3217	3957	4788	5841
<b>CS2736053</b> (Three Phase)	3.50	92.4	32	3399	4509	5525	6794	8220	10029
			38	2889	3867	4769	5897	7135	8705
			43	2478	3349	4154	5157	6240	7613
<b>CS3336053</b> (Three Phase)	4.00	106.2	32	3893	5100	6271	7797	9435	11510
			38	3304	4372	5416	6797	8224	10024
			43	2821	3770	4699	5971	7225	8815

Nominal ratings should be used as a guide, based on 18 degree Celsius return vapour and inherent liquid subcooling. Fan speed controller will require to be adjusted to suit R134a refrigerant at time of commissioning.

Note: Fan speed controller is set for continuous running @ low speed, select fan OFF option at low speed in low ambient applications to prevent over condensing.

### Standard Fitted Features:

- Copeland Compressor with Oil Sight Glass
- Crankcase Heater
- Rotalock Valves
- HP/LP Control
- Gomax Flexible Control Hoses
- Liquid Line Drier & Sight Glass
- Oil Separator (Pre-charged with POE Oil)
- Liquid Receiver
- Galvanised Black Powder Coated Unit Base
- **Supercoat** Condenser Treatment (5000 Hour Salt Spray Test)
- ebmpapst Condenser Fan - Single Phase
- Saginomiya Condenser Fan Speed Controller (Not available for CS10100A1 Units)
- 3PH Contactor & Electronic Motor Protection Relay
- Phase Loss & Phase Imbalance Protection
- Pre - Wired Back to Junction Box
- Nitrogen Holding Charge
- **Options:**
- Suction Accumulator (factory fitted) (Not available for CS10100A1 Units)
- Unit Weatherproof Cover (knockdown form)



# ENTHALPY HERMETIC CONDENSING UNITS

## R449a – Hermetic Flat Base Condensing Units

Airefrig Part Number	H/P (Nominal)	Displ cm <sup>3</sup> /r	Ambient Temp °C	Refrigeration Capacity Watts			
				Evaporating Temperature °C			
				-15	-10	-5	0
<b>CS10100A1</b> (Single Phase)	1.30	38.1	32	2003	2563	3198	3898
			38	1670	2170	2713	3316
			43	1394	1848	2340	2885
<b>CS14260A1</b> (Single Phase) <b>CS14260A3</b> (Three Phase)	2.00	48.6	32	2923	3710	4544	5421
			38	2529	3217	3959	4721
			43	2193	2813	3473	4147
<b>CS18260A1</b> (Single Phase) <b>CS18260A3</b> (Three Phase)	2.50	61.4	32	3508	4478	5508	6590
			38	2973	3846	4783	5772
			43	2543	3325	4177	5075
<b>CS20260A4503</b> (Three Phase)	3.00	74.3	32	3989	5069	6363	7575
			38	3386	4315	5439	6513
			43	2849	3714	4737	5703
<b>CS2736053</b> (Three Phase)	3.50	92.4	32	5162	6557	8082	9687
			38	4385	5635	7004	8458
			43	3752	4881	6117	7432
<b>CS3336053</b> (Three Phase)	4.00	106.2	32	5911	7417	9174	11118
			38	5015	6370	7954	9749
			43	4270	5494	6919	8606

Nominal ratings should be used as a guide, based on 18 degree Celsius return vapour and inherent liquid subcooling.

Note: Fan speed controller is set for continuous running @ low speed, select fan OFF option at low speed in low ambient applications to prevent over condensing.

### Standard Fitted Features:

- Copeland Compressor with Oil Sight Glass
- Crankcase Heater
- Rotolock Valves
- HP/LP Control
- Gomax Flexible Control Hoses
- Liquid Line Drier & Sight Glass
- Oil Separator (Pre-charged with POE Oil)
- Liquid Receiver
- Galvanised Black Powder Coated Unit Base
- **Supercoat** Condenser Treatment (5000 Hour Salt Spray Test)
- ebmpapst Condenser Fan - Single Phase
- Saginomiya Condenser Fan Speed Controller (Not available on CS10100A1 Units)
- 3PH Contactor & Electronic Motor Protection Relay
- Phase Loss & Phase Imbalance Protection
- Pre - Wired Back to Junction Box
- Nitrogen Holding Charge
- **Options:**
- Suction Accumulator (factory fitted) (Not available for CS10100A1 Units)
- Unit Weatherproof Cover (knockdown form)





# ENTHALPY HERMETIC CONDENSING UNITS

## Hermetic Flat Base Unit Optional Extras

### CS Unit Series Optional Extras

Weatherproof Cover Part No	Cover only Weights (kg)	Suit Unit Model
WCAR22	18.0	CS10100A1
WCAR26	28.0	CS14260A1
WCAR26	28.0	CS14260A3
WCAR26	28.0	CS18260A1
WCAR26	28.0	CS18260A3
WCAR26	28.0	CS20260A4503
WCAR36	36.0	CS2736053
WCAR36	36.0	CS3336053



Weatherproof Cover (Knockdown Form)

## Hermetic Flat Base Unit Specifications & Dimensions

Model	Dimensions mm			Weight Kg	Connections Inches		Compressor		Fan Motor(s) 230v-1Ø-50Hz		Receiver @ 90% (R404a) KG	Dimension Drawing
	Depth	Width	Height		Suction	Liquid	Voltage	*MCC (Max Amps)	Diam. (mm)	Amps per fan		
CS10100A1	770	600	475	75	3/4"	1/2"	1Phase	14.2	1 x 350	0.58	4.29	C
CS14260A1	770	820	675	98				17.5	1 x 400	0.73		
CS14260A3	770	820	675	98				3Phase	6.6	1 x 400		
CS18260A1	770	820	675	98			1Phase	19.1	1 x 400	0.73		
CS18260A3	770	820	675	98				6.6	1 x 400	0.73		
CS20260A4503	770	820	675	98			3Phase	7.1	1 x 450	1.55		
CS2736053	850	1075	725	133				5/8"	11.8	1 x 450		1.55
CS3336053	850	1075	725	135	7/8"	13.8			1 x 450	1.55	8.10	B

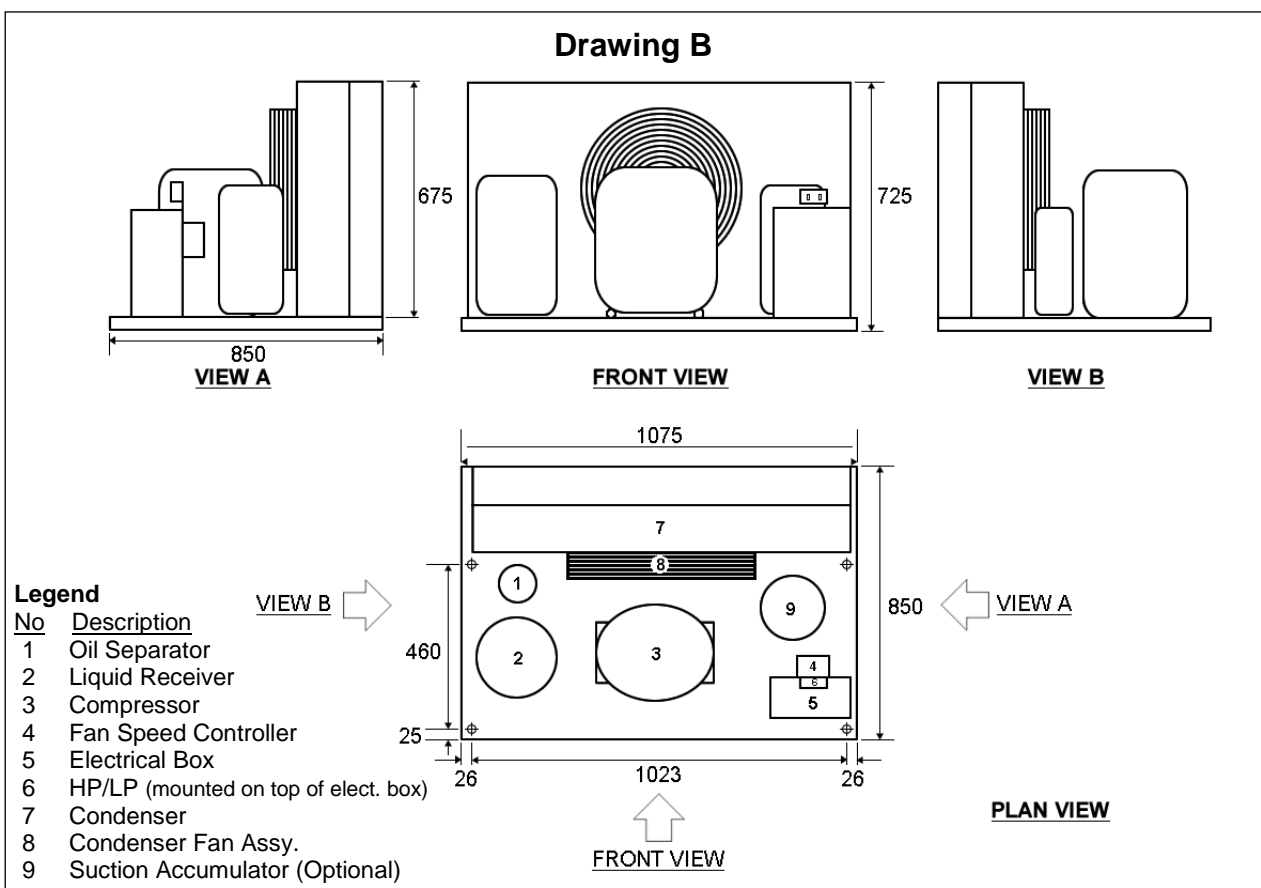
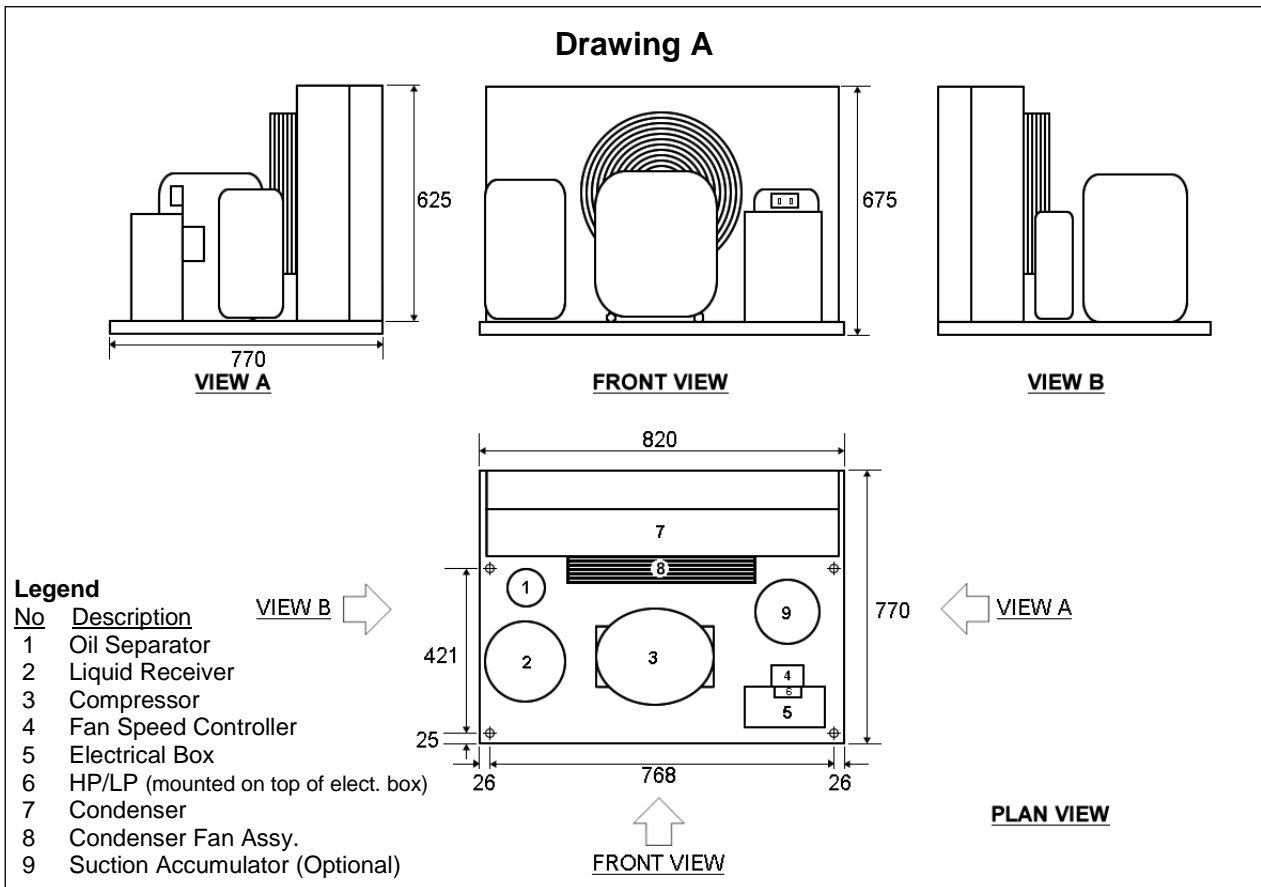
Note: Crankcase Heaters are external wrap 240volts 40 watts.

\*MCC = maximum continuous current, RLA = MCC ÷ 1.4 (Copeland advises use RLA for contactor selection)



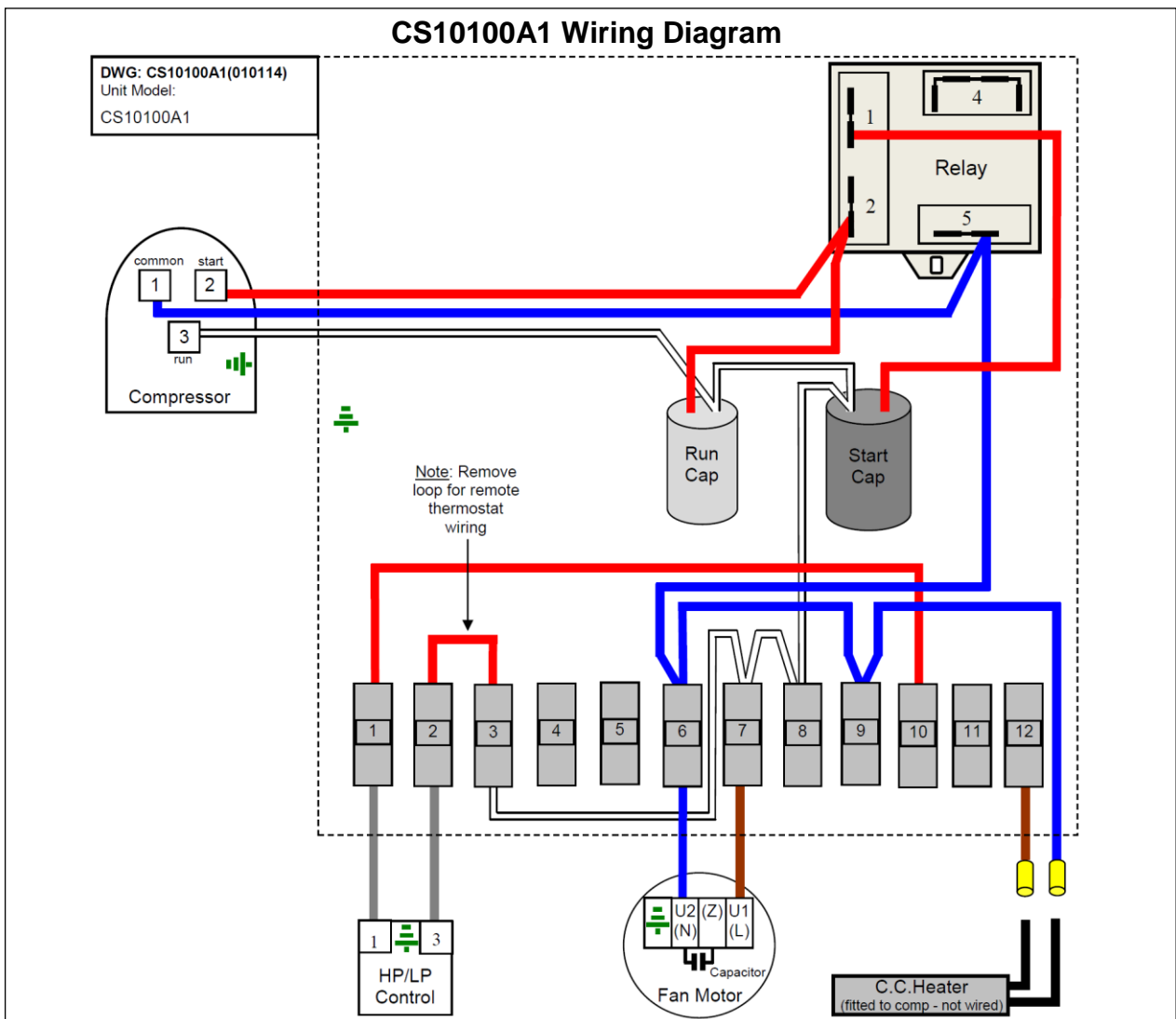
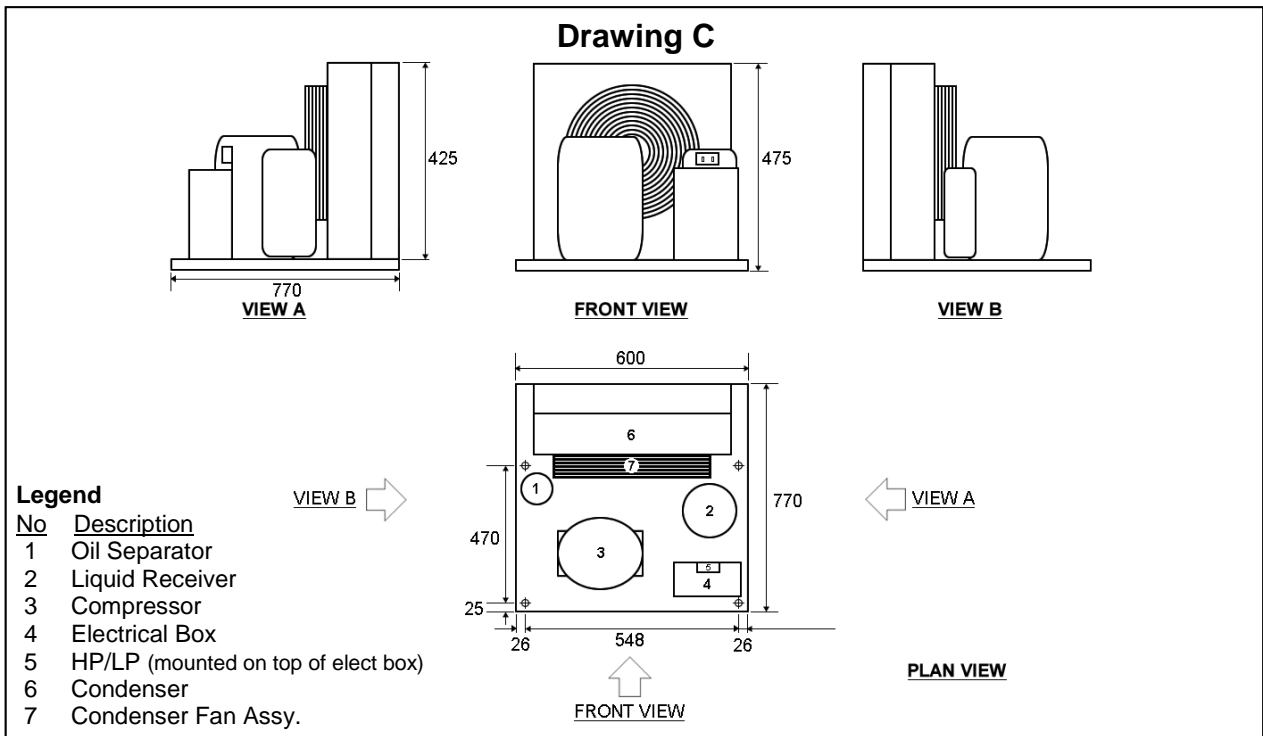
# ENTHALPY HERMETIC CONDENSING UNITS

## Hermetic Flat Base Units Dimensions



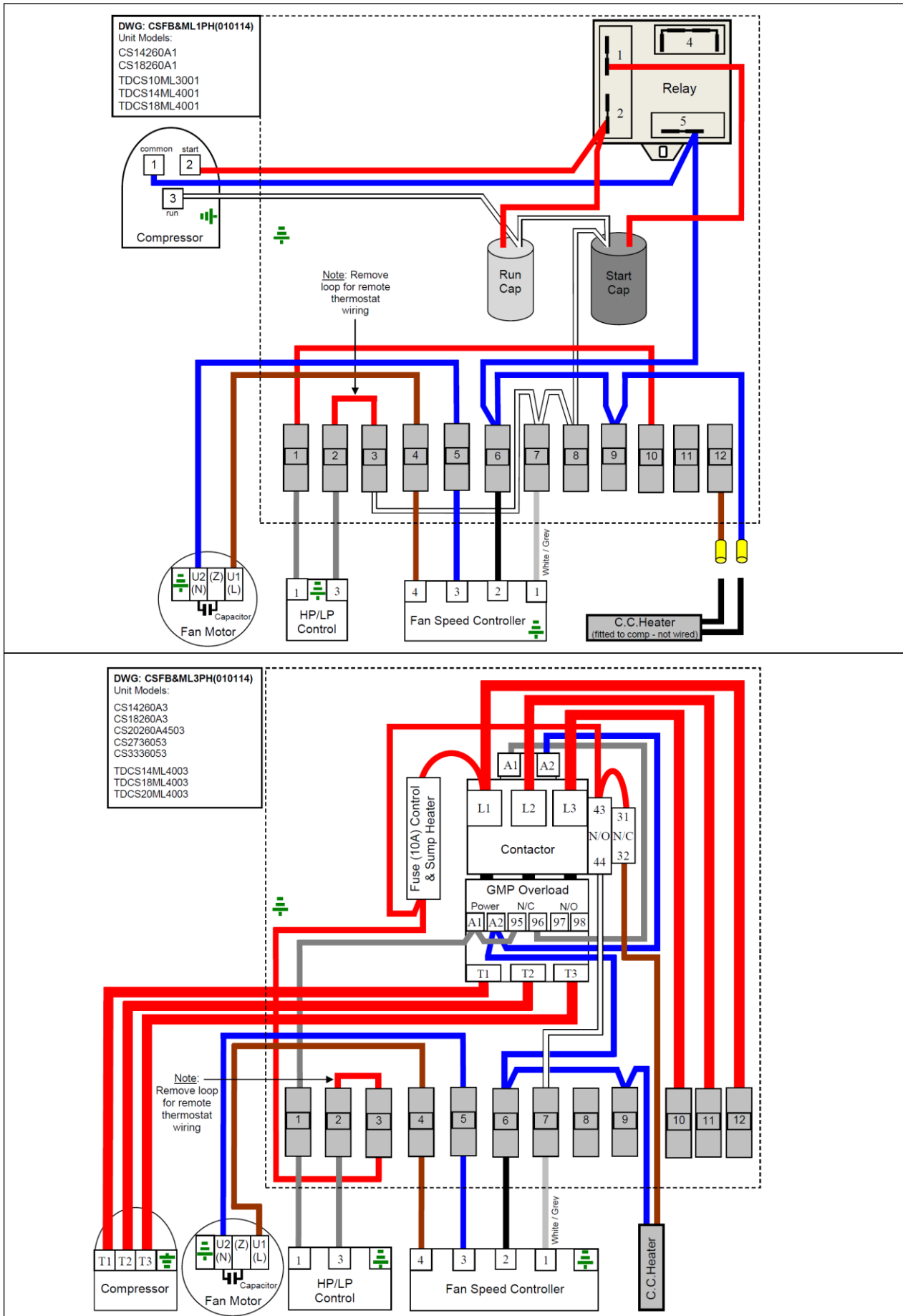
# ENTHALPY HERMETIC CONDENSING UNITS

## Hermetic Flat Base Units Dimensions (cont'd)



# ENTHALPY HERMETIC CONDENSING UNITS

## Hermetic Flat Base Unit Wiring Diagrams (cont'd)





# ENTHALPY HERMETIC CONDENSING UNITS

## Hermetic Flat Base Units Spare Parts

Part Description	Model			
	CS10100A1	CS14260A1	CS14260A3	CS18260A1
Compressor	CS10K6EPFJ595	CS14K6EPFJ595	CS14K6ETFD595	CS18K6EPFJ595
Fan Motor	S4E350AN0248	S4E400AP0244	S4E400AP0244	S4E400AP0244
Speed Controller	N/A	RGEZ1N45MFQ1Q1	RGEZ1N45MFQ1	RGEZ1N45MFQ1
HP/LP	DNSD306X	DNSD306X	DNSD306X	DNSD306X
Compressor Contactor	N/A	N/A	MC12B240V	N/A
Thermal Overload Block	N/A	N/A	GMP223P22A	N/A
Control Fuse Holder	N/A	N/A	CMS101	N/A
Fuse	N/A	N/A	420010	N/A
Oil Separator	EOS1004	EOS1004L	EOS1004L	EOS1004L
Liquid Receiver	1300134B	1300134B	1300134B	1300134B
Suction Service Valve	R052FB4DS	R052FB4DS	R052FB4DS	R052FB4DS
Suction Valve Gasket	020002802	020002802	020002802	020002802
Discharge Service Valve	N/A	R051FA8DS	R051FA8DS	R051FA8DS
Discharge Valve Gasket	N/A	020002800	020002800	020002800
Receiver Outlet Valve	R051FA8DS	R051FA8DS	R051FA8DS	R051FA8DS
Receiver Valve Gasket	020002800	020002800	020002800	020002800
Liquid Drier & Sight glass	CSG084S (combo)	CSG084S (combo)	CSG084S (combo)	CSG084S (combo)
Electrical Box	AIRENTENCL	AIRENTENCL	AIRENTENCL	AIRENTENCL
Optional Fitted Item:				
Suction Accumulator	N/A	PA5083157C	PA5083157C	PA5083157C

Part Description	Model			
	CS18260A3	CS20260A4503	CS2736053	CS3336053
Compressor	CS18K6ETFD595	CS20K6ETFD595	CS27K6ETFD595	CS33K6ETFD595
Fan Motor	S4E400AP0244	S4E450AU0337	S4E450AU0337	S4E450AU0337
Speed Controller	RGEZ1N45MFQ1	RGEZ1N45MFQ1	RGEZ1N45MFQ1	RGEZ1N45MFQ1
HP/LP	DNSD306X	DNSD306X	DNSD306X	DNSD306X
Compressor Contactor	MC12B240V	MC12B240V	MC12B240V	MC12B240V
Thermal Overload Block	GMP223P22A	GMP223P22A	GMP223P22A	GMP223P22A
Control Fuse Holder	CMS101	CMS101	CMS101	CMS101
Fuse	420010	420010	420010	420010
Oil Separator	EOS1004L	EOS1004L	EOS1005	EOS1005
Liquid Receiver	1300134B	1300134B	1320315A	1320315A
Suction Service Valve	R052FB4DS	R052FB4DS	R052FB4DS	R052FB7DS
Suction Valve Gasket	020002802	020002802	020002802	020002802
Discharge Service Valve	R051FA8DS	R051FA8DS	R051FB2DS	R051FB2DS
Discharge Valve Gasket	020002800	020002800	020002800	020002800
Receiver Outlet Valve	R051FA8DS	R051FA8DS	R051FB2DS	R051FB2DS
Receiver Valve Gasket	020002800	020002800	020002800	020002800
Liquid Drier & Sight glass	CSG084S (combo)	CSG084S (combo)	CSG165S (combo)	CSG165S (combo)
Electrical Box	AIRENTENCL	AIRENTENCL	AIRENTENCL	AIRENTENCL
Optional Fitted Item:				
Suction Accumulator	PA5083157C	PA5083157C	PA5083157C	PA5083157C