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Load Short Form
Entire House
Colorado TruEnergy Solutions

Job: CARTER3BR1S
Date: FEB 22,2020
By: EDWARD COYNE

15150 Chelmsford St., Colorado Springs, CO 80921 Phone: 719-304-1887 Email: ed@cotruenergy.com Web: www.cotruenergy.com

Project Information

For: CARTER3BR1S, HABITAT FOR HUMANITY
COLORADO SPRINGS, CO

Design Information

	Htg	Clg
Outside db (°F)	***0***	90
Inside db (°F)	72	75
Design TD (°F)	72	15
Daily range	-	H
Inside humidity (%)	35	35
Moisture difference (gr/lb)	46	-14

Infiltration

Method	Simplified
Construction quality	Semi-tight
Fireplaces	0

HEATING EQUIPMENT

Make	Bryant
Trade	BRYANT
Model	912SC36040S17
AHRI ref	7126229

Efficiency	92.1 AFUE
Heating input	40000 Btuh
Heating output	37000 Btuh
Temperature rise	49 °F
Actual air flow	***855*** cfm
Air flow factor	0.045 cfm/Btuh
Static pressure	0.80 in H2O
Space thermostat	

COOLING EQUIPMENT

Make	Bryant
Trade	LEGACY LINE PURON AC
Cond	123ANA018****C*
Coil	CNPV*2417AL*+912*A36040E17***
AHRI ref	6351006
Efficiency	12.0 EER, 14.5 SEER
Sensible cooling	14790 Btuh
Latent cooling	2610 Btuh
Total cooling	17400 Btuh
Actual air flow	***855*** cfm
Air flow factor	0.103 cfm/Btuh
Static pressure	0.80 in H2O
Load sensible heat ratio	0.94

ROOM NAME	Area (ft²)	Htg load (Btuh)	Clg load (Btuh)	Htg AVF (cfm)	Clg AVF (cfm)
LAUNDRY	56	785	688	***35***	***71***
BED RM#1	168	2119	1319	***95***	***135***
BED RM#2	146	2026	867	***90***	***89***
BED RM#3	124	1205	724	***54***	***74***
BATH	58	298	60	***13***	***6***
LIVING/HALL	288	3328	2187	***148***	***225***
KITCHEN	90	451	1018	***20***	***105***
DINING	130	2610	1060	***116***	***109***
CRAWLER	1060	6343	401	***283***	***41***

Bold/italic values have been manually overridden

Calculations approved by ACCA to meet all requirements of Manual J 8th Ed.

Entire House	2120	19166	8324	***855***	***855***
Other equip loads		1049	223		
Equip. @ 0.95 RSM			8145		
Latent cooling			530		
TOTALS	2120	20215	8675	***855***	***855***

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Building Analysis
Entire House
Colorado TruEnergy Solutions

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Project Information

For: CARTER3BR1S, HABITAT FOR HUMANITY
COLORADO SPRINGS, CO

Design Conditions

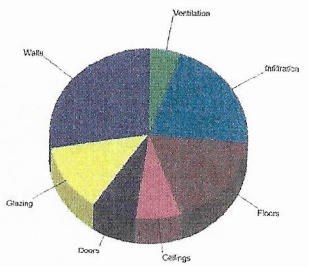
Location:
Colorado Springs Muni AP, CO, US
Elevation: 6171 ft
Latitude: 39°N

Outdoor:	**Heating**	**Cooling**
Dry bulb (°F)	***0***	90
Daily range (°F)	-	26 (H)
Wet bulb (°F)	-	59
Wind speed (mph)	15.0	7.5

Indoor:	**Heating**	**Cooling**
Indoor temperature (°F)	72	75
Design TD (°F)	72	15
Relative humidity (%)	35	35
Moisture difference (gr/lb)	45.9	-13.7
Infiltration:		
Method	Simplified	
Construction quality	Semi-tight	
Fireplaces	0	

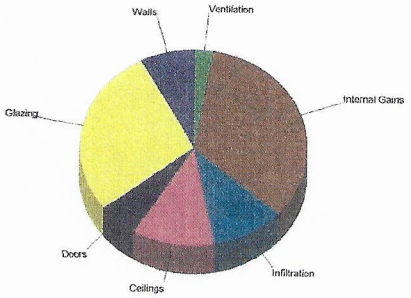
Heating

Component	Btuh/ft²	Btuh	% of load
Walls	4.1	5666	28.0
Glazing	23.0	2604	12.9
Doors	23.0	1452	7.2
Ceilings	1.4	1526	7.6
Floors	3.4	3630	18.0
Infiltration	3.1	4289	21.2
Ducts		0	0
Piping		0	0
Humidification		0	0
Ventilation		1049	5.2
Adjustments		0	
Total		**20215**	**100.0**



Cooling

Component	Btuh/ft²	Btuh	% of load
Walls	0.5	675	7.9
Glazing	21.0	2377	27.8
Doors	7.6	479	5.6
Ceilings	0.9	1002	11.7
Floors	0	0	0
Infiltration	0.7	911	10.7
Ducts		0	0
Ventilation		223	2.6
Internal gains		2880	33.7
Blower		0	0
Adjustments		0	
Total		**8546**	**100.0**



Latent Cooling Load = 530 Btuh
Overall U-value = 0.056 Btuh/ft²-°F

Data entries checked.

Bold/italic values have been manually overridden

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Component Constructions
Entire House
Colorado TruEnergy Solutions

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Date: FEB 22,2020
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Project Information

For: CARTER3BR1S, HABITAT FOR HUMANITY
COLORADO SPRINGS, CO

Design Conditions

Location:
Colorado Springs Muni AP, CO, US
Elevation: 6171 ft
Latitude: 39°N

Outdoor:	Heating	Cooling
Dry bulb (°F)	0	90
Daily range (°F)	-	26 (H)
Wet bulb (°F)	-	59
Wind speed (mph)	15.0	7.5

Indoor:	Heating	Cooling
Indoor temperature (°F)	72	75
Design TD (°F)	72	15
Relative humidity (%)	35	35
Moisture difference (gr/lb)	45.9	-13.7

Infiltration:
Method: Simplified
Construction quality: Semi-tight
Fireplaces: 0

Construction descriptions	Or	Area ft²	U-value Btuh/ft²-°F	Insul R ft²-°F/Btuh	Htg HTM Btuh/ft²	Loss Btuh	Clg HTM Btuh/ft²	Gain Btuh
Walls								
12D-5sw: Frm wall, wd ext, 5/8" wood shth, r-15 cav ins, 1/2" gypsum board int fnsh, r-5 ext bd ins, 2"x6" wood frm, 16" o.c. stud	n	147	0.062	20.0	4.46	656	0.62	91
	e	138	0.062	20.0	4.46	616	0.62	85
	s	320	0.062	20.0	4.46	1428	0.62	197
	w	184	0.062	20.0	4.46	821	0.62	114
	all	789	0.062	20.0	4.46	3522	0.62	487
Bg wall, light dry soil, icf wall, 10" thk, 1/2" gypsum board int fnsh: Bg wall, light dry soil, icf wall, 10" thk, 1/2" gypsum board int fnsh	n	138	0.045	19.0	3.24	447	0.35	49
	e	75	0.045	19.0	3.24	243	0.35	26
	s	138	0.045	19.0	3.24	447	0.35	49
	w	75	0.045	19.0	3.24	243	0.35	26
	all	426	0.045	19.0	3.24	1380	0.35	150
Partitions								
12D-5sw: Frm wall, wd ext, 5/8" wood shth, r-15 cav ins, 1/2" gypsum board int fnsh, r-5 ext bd ins, 2"x6" wood frm, 16" o.c. stud		171	0.062	20.0	4.46	763	0.22	38
Windows								
4A5-2ov: 2 glazing, clr low-e outr, argon gas, vnl frm mat, clr innr, 1/4" gap, 1/4" thk; NFRC rated (SHGC=0.32); 50% drapes, medium; 50% indoor insect screen; 6.67 ft head ht	n	8	0.320	0	23.0	184	8.89	71
	e	41	0.320	0	23.0	945	28.2	1157
	s	48	0.320	0	23.0	1106	14.0	673
	all	97	0.320	0	23.0	2235	19.6	1901
4A5-2ov: 2 glazing, clr low-e outr, argon gas, vnl frm mat, clr innr, 1/4" gap, 1/4" thk; NFRC rated (SHGC=0.32); 50% drapes, medium; 6.67 ft head ht	w	16	0.320	0	23.0	369	29.7	475
Doors								
Door, mtl eps core type: Door, mtl eps core type	n	21	0.320	8.7	23.0	484	7.60	160
	e	21	0.320	8.7	23.0	484	7.60	160
	n	21	0.320	8.7	23.0	484	7.60	160
	all	63	0.320	8.7	23.0	1452	7.60	479
Ceilings								
Attic ceiling, asphalt shingles roof mat, r-50 ceil ins, 1/2" gypsum board int fnsh: Attic ceiling, asphalt shingles roof mat, r-50 ceil ins, 1/2" gypsum board int fnsh		1060	0.020	49.0	1.44	1526	0.95	1002

Floors

22B-10vpm: Bg floor, heavy dry or light damp soil, on grade depth, r-10 edge ins, vinyl flr fnsh	142	0.355	10.0	25.6	3630	0	0

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Project Summary
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Project Information

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COLORADO SPRINGS, CO

Notes:

Design Information

Weather: Colorado Springs Muni AP, CO, US

Winter Design Conditions

Outside db	***0*** °F
Inside db	72 °F
Design TD	72 °F

Summer Design Conditions

Outside db	90 °F
Inside db	75 °F
Design TD	15 °F
Daily range	H
Relative humidity	35 %
Moisture difference	-14 gr/lb

Heating Summary

Structure	19166 Btuh
Ducts	0 Btuh
Central vent (60 cfm)	***1211*** Btuh
Humidification	0 Btuh
Piping	0 Btuh
Equipment load	20377 Btuh

Sensible Cooling Equipment Load Sizing

Structure	8324 Btuh
Ducts	0 Btuh
Central vent (60 cfm)	***257*** Btuh
Blower	0 Btuh
Use manufacturer's data	n
Rate/swing multiplier	0.95
Equipment sensible load	8178 Btuh

Infiltration

Method	Simplified
Construction quality	Semi-tight
Fireplaces	0

	Heating	Cooling
Area (ft²)	2120	2120
Volume (ft³)	11660	11660
Air changes/hour	***0.35***	***0.35***
Equiv. AVF (cfm)	68	68

Latent Cooling Equipment Load Sizing

Structure	696 Btuh
Ducts	0 Btuh
Central vent (60 cfm)	-191 Btuh
Equipment latent load	505 Btuh
Equipment total load	8682 Btuh
Req. total capacity at 0.85 SHR	0.8 ton

Heating Equipment Summary

Make	Bryant
Trade	BRYANT
Model	912SC36040S17
AHRI ref	7126229

Efficiency	92.1 AFUE
Heating input	40000 Btuh
Heating output	37000 Btuh
Temperature rise	49 °F
Actual air flow	***855*** cfm
Air flow factor	0.045 cfm/Btuh
Static pressure	0.80 in H2O
Space thermostat	

Cooling Equipment Summary

Make	Bryant
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Coil	CNPV*2417AL*+912*A36040E17***
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Efficiency	12.0 EER, 14.5 SEER
Sensible cooling	14790 Btuh
Latent cooling	2610 Btuh
Total cooling	17400 Btuh
Actual air flow	***855*** cfm
Air flow factor	0.103 cfm/Btuh
Static pressure	0.80 in H2O
Load sensible heat ratio	0.94

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AED Assessment
Entire House
Colorado TruEnergy Solutions

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By: EDWARD COYNE

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Design Conditions

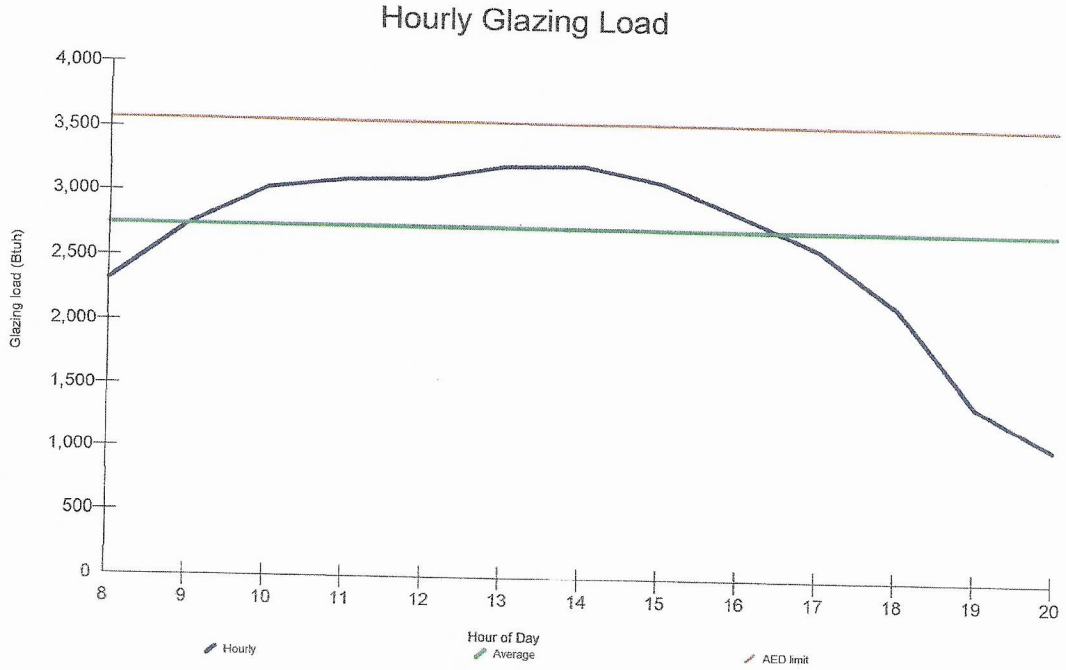
Location:
Colorado Springs Muni AP, CO, US
Elevation: 6171 ft
Latitude: 39°N

Outdoor:	Heating	Cooling
Dry bulb (°F)	***0***	90
Daily range (°F)	-	26 (H)
Wet bulb (°F)	-	59
Wind speed (mph)	15.0	7.5

Indoor:	Heating	Cooling
Indoor temperature (°F)	72	75
Design TD (°F)	72	15
Relative humidity (%)	35	35
Moisture difference (gr/lb)	45.9	-13.7

Infiltration:

Test for Adequate Exposure Diversity



Maximum hourly glazing load exceeds average by 18.1%.

House has adequate exposure diversity (AED), based on AED limit of 30%.

AED excursion: 0 Btuh

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Right-J® Worksheet
Entire House
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							Entire House 260.0 ft				LAUNDRY 4.0 ft			
1	Room name													
2	Exposed wall						5.5 ft				8.0 ft		heat/cool	
3	Room height										1.0 x 56.0 ft			
4	Room dimensions													
5	Room area						2120.0 ft²				56.0 ft²			
	Ty	Construction number	U-value (Btuh/ft²-°F)	Or	HTM (Btuh/ft²)		Area (ft²) or perimeter (ft)		Load (Btuh)		Area (ft²) or perimeter (ft)		Load (Btuh)	
					Heat	Cool	Gross	N/P/S	Heat	Cool	Gross	N/P/S	Heat	Cool
6	W	12D-5sw	0.062	n	4.46	0.62	176	147	656	91	32	11	49	7
.	G	4A5-2ov	0.320	n	23.04	8.89	8	0	184	71	0	0	0	0
.	D	Door, mtl eps core t	0.320	n	23.04	7.60	21	21	484	160	21	21	484	160
.	W	Bg wall, light drys	0.045	n	3.24	0.35	138	138	447	49	0	0	0	0
11	W	12D-5sw	0.062	e	4.46	0.62	200	138	616	85	0	0	0	0
	G	4A5-2ov	0.320	e	23.04	28.23	41	0	945	1157	0	0	0	0
	D	Door, mtl eps core t	0.320	e	23.04	7.60	21	21	484	160	0	0	0	0
	W	Bg wall, light drys	0.045	e	3.24	0.35	75	75	243	26	0	0	0	0
	W	12D-5sw	0.062	s	4.46	0.62	368	320	1428	197	0	0	0	0
	G	4A5-2ov	0.320	s	23.04	14.02	48	0	1106	673	0	0	0	0
	W	Bg wall, light drys	0.045	s	3.24	0.35	138	138	447	49	0	0	0	0
	W	12D-5sw	0.062	w	4.46	0.62	200	184	821	114	0	0	0	0
	G	4A5-2ov	0.320	w	23.04	29.71	16	0	369	475	0	0	0	0
	W	Bg wall, light drys	0.045	w	3.24	0.35	75	75	243	26	0	0	0	0
	P	12D-5sw	0.062	-	4.46	0.22	192	171	763	38	16	16	71	4
	D	Door, mtl eps core t	0.320	n	23.04	7.60	21	21	484	160	0	0	0	0
	C	Attic ceiling, aspha	0.020	-	1.44	0.95	1060	1060	1526	1002	56	56	81	53
	F	22B-10vpm	0.355	-	25.56	0.00	1060	142	3630	0	0	0	0	0
6	c) AED excursion									0				-56
	Envelope loss/gain								14877	4532			685	166
12	a) Infiltration								4289	911			100	21
	b) Room ventilation								0	0			0	0
13	Internal gains:	Occupants @ 230					6			1380	0			0
		Appliances/other								1500				500
	Subtotal (lines 6 to 13)								19166	8324			785	688
	Less external load								0	0			0	0
	Less transfer								0	0			0	0
	Redistribution								0	0			0	0
14	Subtotal								19166	8324			785	688
15	Duct loads						0%	0%	0	0	-0%	0%	0	0
	Total room load								19166	8324			785	688
	Air required (cfm)								855	855			35	71

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wrightsoft

Right-J® Worksheet
Entire House
Colorado TruEnergy Solutions

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							BED RM#1 26.0 ft 8.0 ft heat/cool 12.0 x 14.0 ft 168.0 ft²				BED RM#2 25.0 ft 8.0 ft heat/cool 1.0 x 146.0 ft 146.0 ft²			
	Ty	Construction number	U-value (Btuh/ft²-°F)	Or	HTM (Btuh/ft²)		Area (ft²) or perimeter (ft)		Load (Btuh)		Area (ft²) or perimeter (ft)		Load (Btuh)	
					Heat	Cool	Gross	N/P/S	Heat	Cool	Gross	N/P/S	Heat	Cool
6	W	12D-5sw	0.062	n	4.46	0.62	96	96	429	59	0	0	0	0
.	G	4A5-2ov	0.320	n	23.04	8.89	0	0	0	0	0	0	0	0
.	D	Door, mtl eps core t	0.320	n	23.04	7.60	0	0	0	0	0	0	0	0
.	W	Bg wall, light dry s	0.045	n	3.24	0.35	0	0	0	0	0	0	0	0
11	W	12D-5sw	0.062	e	4.46	0.62	0	0	0	0	0	0	0	0
	G	4A5-2ov	0.320	e	23.04	28.23	0	0	0	0	0	0	0	0
	D	Door, mtl eps core t	0.320	e	23.04	7.60	0	0	0	0	0	0	0	0
	W	Bg wall, light dry s	0.045	e	3.24	0.35	0	0	0	0	0	0	0	0
	W	12D-5sw	0.062	s	4.46	0.62	0	0	0	0	0	0	0	0
	G	4A5-2ov	0.320	s	23.04	14.02	0	0	0	0	112	96	429	59
	W	Bg wall, light dry s	0.045	s	3.24	0.35	0	0	0	0	16	0	369	224
	W	12D-5sw	0.062	w	4.46	0.62	112	96	429	59	88	88	0	0
	G	4A5-2ov	0.320	w	23.04	29.71	16	0	369	475	0	0	393	54
	W	Bg wall, light dry s	0.045	w	3.24	0.35	0	0	0	0	0	0	0	0
	P	12D-5sw	0.062	-	4.46	0.22	0	0	0	0	0	0	0	0
	D	Door, mtl eps core t	0.320	n	23.04	7.60	0	0	0	0	0	0	0	0
	C	Attic ceiling, aspha	0.020	-	1.44	0.95	168	168	242	159	146	146	210	138
	F	22B-10vpm	0.355	-	25.56	0.00	0	0	0	0	0	0	0	0
6	c) AED excursion									198				28
	Envelope loss/gain								1468	950			1400	504
12	a) Infiltration b) Room ventilation								651 0	138 0			626 0	133 0
13	Internal gains:	Occupants @ Appliances/other	230				1			230 0	1			230 0
	Subtotal (lines 6 to 13)								2119	1319			2026	867
	Less external load Less transfer Redistribution								0 0 0	0 0 0			0 0 0	0 0 0
14	Subtotal								2119	1319			2026	867
15	Duct loads						-0%	0%	0	0	-0%	0%	0	0
	Total room load Air required (cfm)								2119 95	1319 135			2026 90	867 89

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							BED RM#3 12.0 ft 8.0 ft heat/cool 1.0 x 124.0 ft 124.0 ft²				BATH 0 ft 8.0 ft heat/cool 1.0 x 58.0 ft 58.0 ft²			
	Ty	Construction number	U-value (Btuh/ft²-°F)	Or	HTM (Btuh/ft²)		Area (ft²) or perimeter (ft)		Load (Btuh)		Area (ft²) or perimeter (ft)		Load (Btuh)	
					Heat	Cool	Gross	N/P/S	Heat	Cool	Gross	N/P/S	Heat	Cool
1	Room name													
2	Exposed wall													
3	Room height													
4	Room dimensions													
5	Room area													
6	W	12D-5sw	0.062	n	4.46	0.62	0	0	0	0	0	0	0	0
.	W-G	4A5-2ov	0.320	n	23.04	8.89	0	0	0	0	0	0	0	0
.	W-D	Door, mtl eps core t	0.320	n	23.04	7.60	0	0	0	0	0	0	0	0
.	W	Bg wall, light dry s	0.045	n	3.24	0.35	0	0	0	0	0	0	0	0
11	W	12D-5sw	0.062	e	4.46	0.62	0	0	0	0	0	0	0	0
	W-G	4A5-2ov	0.320	e	23.04	28.23	0	0	0	0	0	0	0	0
	W-D	Door, mtl eps core t	0.320	e	23.04	7.60	0	0	0	0	0	0	0	0
	W	Bg wall, light dry s	0.045	e	3.24	0.35	0	0	0	0	0	0	0	0
	W	12D-5sw	0.062	s	4.46	0.62	96	80	357	49	0	0	0	0
	W-G	4A5-2ov	0.320	s	23.04	14.02	16	0	369	224	0	0	0	0
	W	Bg wall, light dry s	0.045	s	3.24	0.35	0	0	0	0	0	0	0	0
	W	12D-5sw	0.062	w	4.46	0.62	0	0	0	0	0	0	0	0
	W-G	4A5-2ov	0.320	w	23.04	29.71	0	0	0	0	0	0	0	0
	W	Bg wall, light dry s	0.045	w	3.24	0.35	0	0	0	0	0	0	0	0
	P	12D-5sw	0.062	-	4.46	0.22	0	0	0	0	48	48	214	11
	P-D	Door, mtl eps core t	0.320	n	23.04	7.60	0	0	0	0	0	0	0	0
	C	Attic ceiling, aspha	0.020	-	1.44	0.95	124	124	179	117	58	58	84	55
	F	22B-10vpm	0.355	-	25.56	0.00	0	0	0	0	0	0	0	0
6	c) AED excursion									40				-5
	Envelope loss/gain								904	431			298	60
12	a) Infiltration								301	64			0	0
	b) Room ventilation								0	0			0	0
13	Internal gains:	Occupants @ 230					1			230	0			0
		Appliances/other								0				0
	Subtotal (lines 6 to 13)								1205	724			298	60
	Less external load								0	0			0	0
	Less transfer								0	0			0	0
	Redistribution								0	0			0	0
14	Subtotal								1205	724			298	60
15	Duct loads						-0%	0%	0	0	-0%	0%	0	0
	Total room load								1205	724			298	60
	Air required (cfm)								54	74			13	6

Calculations approved by ACCA to meet all requirements of Manual J 8th Ed.

wrightsoft

Right-J® Worksheet
Entire House
Colorado TruEnergy Solutions

Job: CARTER3BR1S
Date: FEB 22,2020
By: EDWARD COYNE

15150 Chelmsford St., Colorado Springs, CO 80921 Phone: 719-304-1887 Email: ed@cotruenergy.com Web: www.cotruenergy.com

							LIVING/HALL 29.0 ft 8.0 ft heat/cool 1.0 x 288.0 ft 288.0 ft²				KITCHEN 0 ft 8.0 ft heat/cool 9.0 x 10.0 ft 90.0 ft²			
	Ty	Construction number	U-value (Btuh/ft²-°F)	Or	HTM (Btuh/ft²)		Area (ft²) or perimeter (ft)		Load (Btuh)		Area (ft²) or perimeter (ft)		Load (Btuh)	
					Heat	Cool	Gross	N/P/S	Heat	Cool	Gross	N/P/S	Heat	Cool
1	Room name													
2	Exposed wall													
3	Room height													
4	Room dimensions													
5	Room area													
6	W	12D-5sw	0.062	n	4.46	0.62	0	0	0	0	0	0	0	0
.	G	4A5-2ov	0.320	n	23.04	8.89	0	0	0	0	0	0	0	0
.	D	Door, mtl eps core t	0.320	n	23.04	7.60	0	0	0	0	0	0	0	0
.	W	Bg wall, light dry s	0.045	n	3.24	0.35	0	0	0	0	0	0	0	0
11	W	12D-5sw	0.062	e	4.46	0.62	120	74	330	46	0	0	0	0
	G	4A5-2ov	0.320	e	23.04	28.23	25	0	576	706	0	0	0	0
	D	Door, mtl eps core t	0.320	e	23.04	7.60	21	21	484	160	0	0	0	0
	W	Bg wall, light dry s	0.045	e	3.24	0.35	0	0	0	0	0	0	0	0
	W	12D-5sw	0.062	s	4.46	0.62	112	96	429	59	0	0	0	0
	G	4A5-2ov	0.320	s	23.04	14.02	16	0	369	224	0	0	0	0
	W	Bg wall, light dry s	0.045	s	3.24	0.35	0	0	0	0	0	0	0	0
	W	12D-5sw	0.062	w	4.46	0.62	0	0	0	0	0	0	0	0
	G	4A5-2ov	0.320	w	23.04	29.71	0	0	0	0	0	0	0	0
	W	Bg wall, light dry s	0.045	w	3.24	0.35	0	0	0	0	0	0	0	0
	P	12D-5sw	0.062	-	4.46	0.22	0	0	0	0	0	0	0	0
	D	Door, mtl eps core t	0.320	n	23.04	7.60	0	0	0	0	72	72	321	16
	C	Attic ceiling, aspha	0.020	-	1.44	0.95	288	288	415	272	0	0	0	0
	F	22B-10vpm	0.355	-	25.56	0.00	0	0	0	0	90	90	130	85
											0	0	0	0
6	c) AED excursion									-124				-83
	Envelope loss/gain								2602	1343			451	18
12	a) Infiltration								726	154			0	0
	b) Room ventilation								0	0			0	0
13	Internal gains:	Occupants @ 230					3			690	0			0
		Appliances/other								0				1000
	Subtotal (lines 6 to 13)								3328	2187			451	1018
	Less external load								0	0			0	0
	Less transfer								0	0			0	0
	Redistribution								0	0			0	0
14	Subtotal								3328	2187			451	1018
15	Duct loads						-0%	0%	0	0	-0%	0%	0	0
	Total room load								3328	2187			451	1018
	Air required (cfm)								148	225			20	105

Calculations approved by ACCA to meet all requirements of Manual J 8th Ed.

wrightsoft

Duct System Summary
Entire House
Colorado TruEnergy Solutions

Job: CARTER3BR1S
Date: FEB 22,2020
By: EDWARD COYNE

15150 Chelmsford St., Colorado Springs, CO 80921 Phone: 719-304-1887 Email: ed@cotruenergy.com Web: www.cotruenergy.com

Project Information

For: CARTER3BR1S, HABITAT FOR HUMANITY
COLORADO SPRINGS, CO

	Heating	Cooling
External static pressure	0.80 in H2O	0.80 in H2O
Pressure losses	0 in H2O	0 in H2O
Available static pressure	0.80 in H2O	0.80 in H2O
Supply / return available pressure	0.559 / 0.241 in H2O	0.559 / 0.241 in H2O
Lowest friction rate	0.280 in/100ft	0.280 in/100ft
Actual air flow	***855*** cfm	***855*** cfm
Total effective length (TEL)	286 ft	

Supply Branch Detail Table

Name		Design (Btuh)	Htg (cfm)	Clg (cfm)	Design FR	Diam (in)	H x W (in)	Duct Matl	Actual Ln (ft)	Ftg.Eqv Ln (ft)	Trunk
BATH	h	298	13	6	0.313	***4.0***	***0x 0***	VlFx	9.0	170.0	st1
BED RM#1	c	1319	95	135	0.311	***6.0***	***0x 0***	VlFx	25.0	155.0	st2A
BED RM#2	h	2026	90	89	0.281	***6.0***	***0x 0***	ShMt	29.0	170.0	st2A
BED RM#3	c	724	54	74	0.331	***6.0***	***0x 0***	ShMt	14.0	155.0	st2
CRAWLER	h	3172	141	21	0.298	***6.0***	***0x 0***	ShMt	13.0	175.0	st1A
CRAWLER-A	h	3172	141	21	0.302	***6.0***	***0x 0***	ShMt	20.0	165.0	st2A
DINING	h	1305	58	54	0.291	***6.0***	***0x 0***	VlFx	27.0	165.0	st1A
DINING-A	h	1305	58	54	0.296	***6.0***	***0x 0***	ShMt	24.0	165.0	st1A
KITCHEN	c	1018	20	105	0.337	***6.0***	***0x 0***	ShMt	11.0	155.0	st1
LAUNDRY	c	688	35	71	0.347	***4.0***	***0x 0***	ShMt	16.0	145.0	st2
LIVING/HALL	c	1094	74	112	0.280	***6.0***	***0x 0***	VlFx	20.0	180.0	st1A
LIVING/HALL-A	c	1094	74	112	0.337	***6.0***	***0x 0***	ShMt	21.0	145.0	st1

Supply Trunk Detail Table

Name	Trunk Type	Htg (cfm)	Clg (cfm)	Design FR	Veloc (fpm)	Diam (in)	H x W (in)	Duct Material	Trunk
st2A	PeakAVF	326	245	0.281	588	***7.9***	***8*** x ***10***	ShtMetl	st2
st2	PeakAVF	415	390	0.281	534	***7.9***	***8*** x ***14***	ShtMetl	
st1A	PeakAVF	332	242	0.280	598	***9.0***	***8*** x ***10***	ShtMetl	st1
st1	PeakAVF	440	465	0.280	598	***9.0***	***8*** x ***14***	ShtMetl	

Bold/italic values have been manually overridden

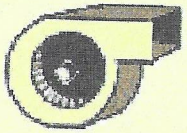
Return Branch Detail Table

Name	Grill Size (in)	Htg (cfm)	Clg (cfm)	TEL (ft)	Design FR	Veloc (fpm)	Diam (in)	H x W (in)	Stud/Joist Opening (in)	Duct Matl	Trunk
rb4	0x 0	460	429	86.0	0.280	844	***10.0***	***0***x ***0***		VlFx	
rb3	0x 0	395	426	63.0	0.382	782	***10.0***	***0***x ***0***		VlFx	

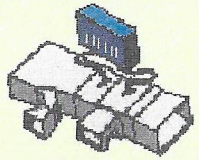
Bold/italic values have been manually overridden

CARTER5BRIS

Static Pressure for Entire House



	Heating (in H2O)	Cooling (in H2O)
External static pressure	[0.80]	[0.80]
Pressure losses		
Coil	0.19	0.19
Heat exchanger	0	0
Supply diffusers	0.03	0.03
Return grilles	0.03	0.03
Filter	0.05	0.05
Humidifier	0	0
Balancing damper	0	0
Other device	0	0
Available static pressure	0.50	0.50



	Supply (ft)	Return (ft)
Measured length of run-out	7	16
Measured length of trunk	13	0
Equivalent length of fittings	180 •••	70 •••
Total length	200	86
Total effective length		286

Friction Rate	Heating (in/100ft)		Cooling (in/100ft)	
Supply	[0.175]	OK	[0.175]	OK
Return	[0.175]	OK	[0.175]	OK

CARTER 3BR15

SAP ORDERING NO.	CASING DIMENSIONS (IN.)			RATED HEATING OUTPUT†		HEATING AIRFLOW		COOLING CFM @ 0.5 ESP (in. W.C.)	MOTOR HP - SPEED TAPS
	H	D	W	(BTUH)	AFUE	CFM‡	Heating ESP (in. W.C.)		
912SC30040S14	35	29.5	14.2	37,000	92.1%	910	0.10	595–970	1/3 - 4
912SC36040S17	35	29.5	17.5	37,000	92.1%	980	0.10	655–1140	1/2 - 5
912SC36060S14	35	29.5	14.2	56,000	92.1%	910	0.12	645–1155	1/3 - 4
912SC48060S17	35	29.5	17.5	56,000	92.1%	980	0.12	985–1505	1/2 - 4
912SB48080S17	35	29.5	17.5	75,000	92.1%	1030	0.15	760–1555	1/2 - 5
912SC48080S17	35	29.5	17.5	75,000	92.1%	1030	0.15	760–1555	1/2 - 5
912SC60080S21	35	29.5	21.0	75,000	92.1%	1115	0.15	865–1885	3/4 - 5
912SC48100S21	35	29.5	21.0	93,000	92.1%	1490	0.20	890–1490	1/2 - 4
912SC60100S21	35	29.5	21.0	93,000	92.1%	1550	0.20	1475–1970	3/4 - 4
912SC60120S24	35	29.5	24.5	112,000	92.1%	2070	0.20	1450–2050	3/4 - 4

† Capacity in accordance with DOE test procedures. Ratings are position dependent. See rating plate.
‡ Heating CFM at factory default blower motor heating tap settings.
ESP – External Static Pressure

FEATURES AND BENEFITS

HYBRID HEAT® Dual Fuel system — This system can provide more control over your monthly energy bills by automatically selecting the most economical method of heating. With HYBRID HEAT, our system automatically switches between the gas furnace and the single-stage electric heat pump as outside temperatures change to maintain greater efficiency and comfort than with any traditional single-source heating system. The heat pump also delivers high-efficiency cooling in the summer.

Power Heat™ Igniter — Bryant's unique SiN igniter is not only physically robust but it is also electrically robust. It is capable of running at line voltage and does not require complex voltage regulators as do other brands. This unique feature further enhances the gas furnace reliability and continues Bryant's tradition of technology leadership and innovation in providing a reliable and durable product.

Reliable Heat Exchanger Design — The aluminized steel, clam shell primary heat exchanger was re-engineered to achieve greater efficiency out of a smaller size. The first two passes of the heat exchanger are based on the current 80% product, a design with more than ten years of field-proven performance and success. These innovations, paired with the continuation of a crimped, no-weld seam create an efficient, robust design for this essential component.

The condensing heat exchanger, a stainless steel fin and tube design, is positioned in the furnace to extract additional heat. Stainless steel coupling box componentry between heat exchangers has exceptional corrosion resistance in both natural gas and propane applications.

4-Way Multipoise Design — One model for all applications – there is no need to stock special downflow or horizontal models when one unit will do it all. The new heat exchanger design allows these units to achieve the certified AFUE in all positions.

Direct or Single-pipe Venting, or Optional Ventilated Combustion Air — This furnace can be installed as a 2-pipe (Direct Vent) furnace, in an optional ventilated combustion air application, or in single-pipe, non-direct vent applications. This provides added flexibility to meet diverse installation needs.

Sealed Combustion System — This furnace brings in combustion air from outside the furnace, which results in especially quiet operation. By sealing the entire combustion vestibule, the entire furnace can be made quieter, not just the burners.

Monoport Burners — The burners are specially designed and finely tuned for smooth, quiet combustion and economical operation.

Bottom Closure — Factory-installed for side return; easily removable for bottom return. The multi-use bottom closure can also serve for roll-out protection in horizontal applications, and act as the bottom closure for the optional return air base accessory.

Blower Access Panel Switch — Automatically shuts off 115-v power to furnace whenever blower access panel is opened.

Quality Registration — Our furnaces are engineered and manufactured under an ISO 9001 registered quality system.

Certifications — This furnace is CSA (AGA and CGA) design certified for use with natural and propane gases. The furnace is factory-shipped for use with natural gas. A CSA listed gas conversion kit is required to convert furnace for use with propane gas. The efficiency is AHRI efficiency rating certified. This furnace meets California Air Quality Management District emission requirements.

CARTER3BR15

SPECIFICATIONS

The furnace should be sized to provide 100 percent of the design heating load requirement plus any margin that occurs because of furnace model size capacity increments. None of the furnace model sizes can be used if the heating load is 20,000 BTU or lower. Use Air Conditioning Contractors of America (Manual J and S); American Society of Heating, Refrigerating, and Air-Conditioning Engineers; or other approved engineering method to calculate heating load estimates and select the furnace. Excessive oversizing of the furnace may cause the furnace and/or vent to fail prematurely, customer discomfort and/or vent freezing.

Failure to follow these guidelines is considered faulty installation *and/or misapplication of the furnace; and resulting failure,* damage, or repairs may impact warranty coverage.

Heating Capacity and Efficiency			30040	36040	36060	48060	48080	60080	48100	60100	60120
Input	High Heat	(BTUH)	40,000	40,000	60,000	60,000	80,000	80,000	100,000	100,000	120,000
Output	High Heat	(BTUH)	37,000	37,000	56,000	56,000	75,000	75,000	93,000	93,000	112,000
Certified Temperature Rise Range °F (°C)		High Heat	40 - 70 (22 - 39)	35 - 65 (19 - 36)	40 - 70 (22 - 39)	35 - 65 (19 - 36)	35 - 65 (19 - 36)	35 - 65 (19 - 36)	40 - 70 (22 - 39)	40 - 70 (22 - 39)	45 - 75 (25 - 42)

Airflow Capacity and Blower Data		30040	36040	36060	48060	48080	60080	48100	60100	60120
Rated External Static Pressure (in. W.C.)	Heating	0.10	0.10	0.12	0.12	0.15	0.15	0.20	0.20	0.20
	Cooling	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
Airflow Delivery @ Rated ESP (CFM)	High Heat	910	980	910	980	1030	1115	1480	1550	2070
	Cooling	970	1140	1155	1505	1555	1885	1490	1970	2050
Cooling Capacity (tons)	400 CFM/ton	2.5	2.5	2.5	3.5	4	4.5	3.5	5	5
	350 CFM/ton	2.5	3	3	4	4.5	5.0	4.0	5.5	5.5
Direct-Drive Motor Type		Permanent Split Capacitor (PSC)								
Direct-Drive Motor HP		0.3	0.5	0.3	0.5	0.5	0.75	0.5	0.75	0.75
Motor Full Load Amps		4.6	6.8	4.6	7.9	7.4	7.9	6.5	11.1	11.1
RPM Range		500 - 1150								
Speed Selections		4	5	4	4	5	5	4	4	4
Blower Wheel Dia x Width	in.	11 x 7	11 x 8	11 x 7	11 x 8	11 x 8	11 x 10	11 x 10	11 x 10	11 x 11
Air Filtration System		Field Supplied								
Filter Used for Certified Watt Data*		KGAWF**06UFR								

Electrical Data		30040	36040	36060	48060	48080	60080	48100	60100	60120
Input Voltage	Volts-Hertz-Phase	115-60-1								
Operating Voltage Range	Min-Max	104-127								
Maximum Input Amps	Amps	5.2	7.4	5.3	8.6	8.1	8.6	7.3	11.9	11.9
Unit Ampacity	Amps	7.5	10.3	7.6	11.7	11.1	11.7	10.1	15.8	15.8
Minimum Wire Size	AWG	14	14	14	14	14	14	14	12	12
Maximum Wire Length @ Minimum Wire Size	Feet	49	36	48	31	33	31	36	36	36
	(M)	(14.9)	(11.0)	(14.6)	(9.4)	(10.1)	(9.4)	(11.0)	(11.0)	(11.0)
Maximum Fuse/Ckt Bkr (Time-Delay Type Recommended)	Amps	15	15	15	15	15	15	15	20	20
Transformer Capacity (24vac output)		40 VA								
External Control Power Available	Heating	27.9 VA								
	Cooling	34.6 VA								

Controls		30040	36040	36060	48060	48080	60080	48100	60100	60120
Gas Connection Size		1/2" - NPT								
Burners (Monoport)		2	2	3	3	4	4	5	5	6
Gas Valve (Redundant)	Manufacturer	White Rodgers								
Minimum Inlet Gas pressure (in. W.C.)		4.5								
Maximum Inlet Gas pressure (in. W.C.)		13.6								
Ignition Device		Silicon Nitride								
Limit Control		195	180	220	190	185	195	220	220	165
Heating Blower Control (Heating Off-Delay)		Adjustable: 90, 120, 150, 180 seconds								
Cooling Blower Control (Time Delay Relay)		90 seconds								
Communication System		*none*								
Thermostat Connections		Com 24V, R, W, G, Y								
Accessory Connections		EAC (115vac); HUM (24vac)								

* See Accessory List for part numbers available.

912SC

CARTER 3BR15

AIR DELIVERY - CFM (BOTTOM RETURN WITH FILTER)

Furnace	Return Air Connection	Wire Lead Color	Cooling Tons	CFM / Ton	Test Airflow Delivery @ Various External Static Pressures									
					0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9	1
030040	SIDE/BOTTOM	Black	2.5	388	1145	1100	1060	1015	970	920	860	785	**680**	**615**
		Blue	2.0	413	970	940	905	870	825	775	730	675	570	**505**
		Yellow	2.0	385	910	880	845	810	770	725	675	600	535	**475**
		Red	1.5	397	725	695	665	635	595	555	510	460	**390**	**340**
036060	SIDE/BOTTOM	Black	3.0	385	1215	1205	1205	1195	1155	1100	1045	975	910	805
		Blue	2.5	370	980	985	980	955	925	880	835	780	695	585
		Yellow	2.0	425	910	920	905	880	850	815	765	695	630	545
		Red [3]	1.5	430	750	730	705	680	645	605	555	490	435	**370**
036040	SIDE/BOTTOM	Black	3.0	380	1365	1310	1255	1200	1140	**1080**	**1015**	**950**	**860**	**795**
		Yellow	2.5	418	1245	1200	1150	1100	1045	990	930	855	790	**730**
		Orange	2.5	366	1050	1025	985	950	915	870	820	760	705	655
		Blue	2.0	435	980	955	935	905	870	830	780	725	675	625
		Red	1.5	437	720	705	690	675	655	625	590	555	525	**485**
048060	SIDE/BOTTOM	Black	4.0	376	1600	1545	1505	1475	1505	1445	1400	1330	1235	1140
		Yellow	3.5	377	1380	1340	1335	1330	1320	1285	1225	1155	1085	1000
		Blue [3]	3.0	387	1190	1185	1195	1195	1160	1125	1075	1015	950	885
		Red [3]	2.5	394	1030	1025	1030	1010	985	940	905	855	805	735
48080 (Series B Only)	SIDE/BOTTOM	Black	4.0	408	1800	1770	1735	1685	1630	1570	1495	1415	1330	1230
		Yellow	3.5	386	1445	1430	1410	1385	1350	1305	1255	1195	1120	1045
		Orange	3.0	390	1250	1240	1225	1200	1170	1130	1090	1040	975	910
		Blue	2.5	404	1090	1080	1060	1035	1010	970	930	885	835	765
		Red [3]	2.0	390	880	860	835	810	780	750	710	665	615	560
048080 (Series C Only)	SIDE/BOTTOM	Black	4.0	389	1650	1620	1640	1605	1555	1495	1425	1345	1255	1165
		Yellow	3.5	381	1420	1425	1400	1370	1335	1290	1230	1170	1095	1015
		Orange	3.0	383	1205	1205	1185	1165	1150	1100	1055	1000	935	870
		Blue	2.5	384	1035	1020	1005	985	960	930	895	845	795	735
		Red [3]	2.0	380	850	825	805	785	760	725	695	655	600	545
060080	BOTTOM or TWO-SIDES [4, 5]	Black	5.0	377	2225	2160	2070	1980	1885	1790	1690	1575	1460	1345
		Yellow	4.0	386	1690	1665	1640	1595	1545	1485	1410	1330	1235	1135
		Orange	3.5	397	1485	1470	1455	1430	1390	1340	1280	1205	1120	1035
		Blue [3]	2.5	426	1120	1110	1100	1090	1065	1035	990	935	870	805
		Red [3]	2.0	433	940	920	910	890	865	830	790	745	690	625
048100	SIDE/BOTTOM	Black	4.0	373	1715	1660	1610	1555	1490	1420	1340	1245	1150	1065
		Yellow [3]	3.5	379	1535	1480	1435	1380	1325	1260	1180	1095	1010	910
		Blue [3]	3.0	367	1300	1255	1205	1160	1100	1035	970	905	810	730
		Red [3]	2.0	445	1110	1055	1005	955	890	835	770	690	610	535
060100	BOTTOM or TWO-SIDES [4, 5]	Black	5.0	394	2270	2205	2130	2055	1970	1880	1780	1670	1555	1425
		Yellow	5.0	367	2090	2040	1980	1910	1835	1755	1670	1570	1460	1340
		Blue	4.0	416	1850	1815	1775	1725	1665	1600	1525	1435	1335	1225
		Red	3.5	421	1580	1550	1540	1515	1475	1420	1355	1280	1190	1100
060120	BOTTOM or TWO-SIDES [4, 5]	Black	5.0	410	2385	2310	2230	2150	2050	1920	1780	1650	1540	1415
		Yellow	5.0	369	2130	2070	2010	1940	1845	1740	1630	1525	1420	1305
		Blue	4.0	416	1875	1840	1795	1735	1665	1580	1495	1410	1310	1205
		Red [3]	3.5	414	1610	1585	1555	1515	1450	1395	1325	1250	1160	1080

NOTE:

1. A filter is required for each return–air inlet. Airflow performance includes a 3/4–in. (19 mm) washable filter media such as contained in a factory–authorized accessory filter rack. *See accessory list. To determine airflow performance without this filter, assume an additional 0.1 in. W.C.. available external static* pressure.
2. **ADJUST THE BLOWER SPEED TAPS AS NECESSARY FOR THE PROPER AIR TEMPERATURE RISE FOR EACH INSTALLATION.**
3. Shaded areas indicate that this airflow range is BELOW THE RANGE ALLOWED FOR HEATING OPERATION.
4. Airflows over 1800 CFM require bottom return, two–side return, or bottom and side return. A minimum filter size of 20" x 25" (508 x 635 mm) is required.
5. For upflow applications, air entering from one side into both the side of the furnace and a return air base counts as a side and bottom return.
6. All airflows that are shown in **BOLD** exceed 0.58 watts per CFM at the given external static pressure.

CARTER 3 BRIS

912SC

AIR DELIVERY - CFM (BOTTOM RETURN WITH FILTER)

Furnace	Return Air Connection	Wire Lead Color	Cooling Tons	CFM / Ton	Test Airflow Delivery @ Various External Static Pressures									
					0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9	1
030040	SIDE/BOTTOM	Black	2.5	388	1145	1100	1060	1015	970	920	860	785	**680**	**615**
		Blue	2.0	413	970	940	905	870	825	775	730	675	570	**505**
		Yellow	2.0	385	910	880	845	810	770	725	675	600	535	**475**
		Red	1.5	397	725	695	665	635	595	555	510	460	**390**	**340**
036060	SIDE/BOTTOM	Black	3.0	385	1215	1205	1205	1195	1155	1100	1045	975	910	805
		Blue	2.5	370	980	985	980	955	925	880	835	780	695	585
		Yellow	2.0	425	910	920	905	880	850	815	765	695	630	545
		Red [3]	1.5	430	750	730	705	680	645	605	555	490	435	**370**
036040	SIDE/BOTTOM	Black	3.0	380	1365	1310	1255	1200	1140	**1080**	**1015**	**950**	**860**	**795**
		Yellow	2.5	418	1245	1200	1150	1100	1045	990	930	855	790	**730**
		Orange	2.5	366	1050	1025	985	950	915	870	820	760	705	655
		Blue	2.0	435	980	955	935	905	870	830	780	725	675	625
		Red	1.5	437	720	705	690	675	655	625	590	555	525	**485**
048060	SIDE/BOTTOM	Black	4.0	376	1600	1545	1505	1475	1505	1445	1400	1330	1235	1140
		Yellow	3.5	377	1380	1340	1335	1330	1320	1285	1225	1155	1085	1000
		Blue [3]	3.0	387	1190	1185	1195	1195	1160	1125	1075	1015	950	885
		Red [3]	2.5	394	1030	1025	1030	1010	985	940	905	855	805	735
48080 (Series B Only)	SIDE/BOTTOM	Black	4.0	408	1800	1770	1735	1685	1630	1570	1495	1415	1330	1230
		Yellow	3.5	386	1445	1430	1410	1385	1350	1305	1255	1195	1120	1045
		Orange	3.0	390	1250	1240	1225	1200	1170	1130	1090	1040	975	910
		Blue	2.5	404	1090	1080	1060	1035	1010	970	930	885	835	765
		Red [3]	2.0	390	880	860	835	810	780	750	710	665	615	560
048080 (Series C Only)	SIDE/BOTTOM	Black	4.0	389	1650	1620	1640	1605	1555	1495	1425	1345	1255	1165
		Yellow	3.5	381	1420	1425	1400	1370	1335	1290	1230	1170	1095	1015
		Orange	3.0	383	1205	1205	1185	1165	1150	1100	1055	1000	935	870
		Blue	2.5	384	1035	1020	1005	985	960	930	895	845	795	735
		Red [3]	2.0	380	850	825	805	785	760	725	695	655	600	545
060080	BOTTOM or TWO-SIDES [4, 5]	Black	5.0	377	2225	2160	2070	1980	1885	1790	1690	1575	1460	1345
		Yellow	4.0	386	1690	1665	1640	1595	1545	1485	1410	1330	1235	1135
		Orange	3.5	397	1485	1470	1455	1430	1390	1340	1280	1205	1120	1035
		Blue [3]	2.5	426	1120	1110	1100	1090	1065	1035	990	935	870	805
		Red [3]	2.0	433	940	920	910	890	865	830	790	745	690	625
048100	SIDE/BOTTOM	Black	4.0	373	1715	1660	1610	1555	1490	1420	1340	1245	1150	1065
		Yellow [3]	3.5	379	1535	1480	1435	1380	1325	1260	1180	1095	1010	910
		Blue [3]	3.0	367	1300	1255	1205	1160	1100	1035	970	905	810	730
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		Yellow	5.0	367	2090	2040	1980	1910	1835	1755	1670	1570	1460	1340
		Blue	4.0	416	1850	1815	1775	1725	1665	1600	1525	1435	1335	1225
		Red	3.5	421	1580	1550	1540	1515	1475	1420	1355	1280	1190	1100
060120	BOTTOM or TWO-SIDES [4, 5]	Black	5.0	410	2385	2310	2230	2150	2050	1920	1780	1650	1540	1415
		Yellow	5.0	369	2130	2070	2010	1940	1845	1740	1630	1525	1420	1305
		Blue	4.0	416	1875	1840	1795	1735	1665	1580	1495	1410	1310	1205
		Red [3]	3.5	414	1610	1585	1555	1515	1450	1395	1325	1250	1160	1080

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6. All airflows that are shown in **BOLD** exceed 0.58 watts per CFM at the given external static pressure.

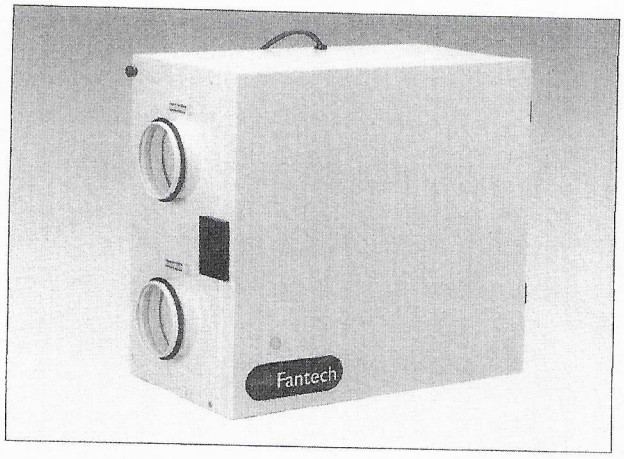
CARTER BBR 15

Fantech

Energy Recovery Ventilator

SE704N

S = Side discharge
E = Energy recovery
704 = 70cfm, 4 port design
N = No defrost & drain pan



Compact ERV with easy mount wall bracket. Brings a continuous supply of fresh air into a home while exhausting an equal amount of contaminated air. The enthalpic core at the center of the unit transfers heat and moisture from the incoming air to the outgoing air. The air brought into the living area is cooled and the humidity is reduced for maximum comfort. Reduces the load on a home's air conditioner to save on cooling costs.

FEATURES

- Super Compact Size
- Includes Easy-Mount Wall Bracket
- Enthalpy Core
- 4″ (100mm) Duct Connection
- No Balancing Required
- Unit Can Be Installed In Any Position
- No Defrost or Drain Pan Needed
- Easy Access Service Door
- 3' (914mm) Plug-in Power Cord
- Only 25 lbs (11 kg)
- Electrostatic Filters (washable)
- Easy Core Guide Channels For Removing Core
- Single Speed Ventilation

ACCESSORIES

- FDT 7 – 7 Day Digital Programmable Timer
- COM 4P – 4″ Weather Hoods (1 supply & 1 exhaust)
- FEL 4 – 4″ 90° Elbow
- CG 4 – 4″ Adjustable Grille

SPECIFICATIONS

CASE 24 gauge galvanized steel. Baked powder coated paint, antique white. Cabinet fully insulated with 1" (25 mm) aluminum foil-face high density polystyrene foam to prevent condensation and meet the requirements of the UL 94HF.

MOTORS Two (2) German-manufactured, factory-balanced ebm™ motors with backward curved blades. Motors come with permanently lubricated sealed ball bearings to guarantee long life and maintenance-free operation. Seven (7) year warranty. Steep fan curve requires no balancing.

CORE Enthalpy core configured for efficient cross-flow ventilation. Core is 8.5″ x 8.5″ (216 x 216 mm) with a 8″ (205 mm) depth. Cores are manufactured to withstand large temperature variations.

FILTERS Two (2) Washable Electrostatic Panel Type Air Filters, 8.5″ (216mm) x 8″ (203mm) x 0.125″ (3mm).

CONTROLS Unit is designed to operate continuously on a single speed. See FDT 7 under accessories or contact Tech Support for possible intermittent, line-voltage options.

SERVICEABILITY Core, filters, and motors can be easily accessed through latched door. Core conveniently slides out *on our new easy glide core guides. 10″ (250mm)* of clearance is recommended for removal of core.

DUCT CONNECTION 4″ (100mm) steel duct connections with rubber gasket for easy sealing.

WARRANTY Limited 5 year on Enthalpy core, 7 year on motors, and 5 year on parts.

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