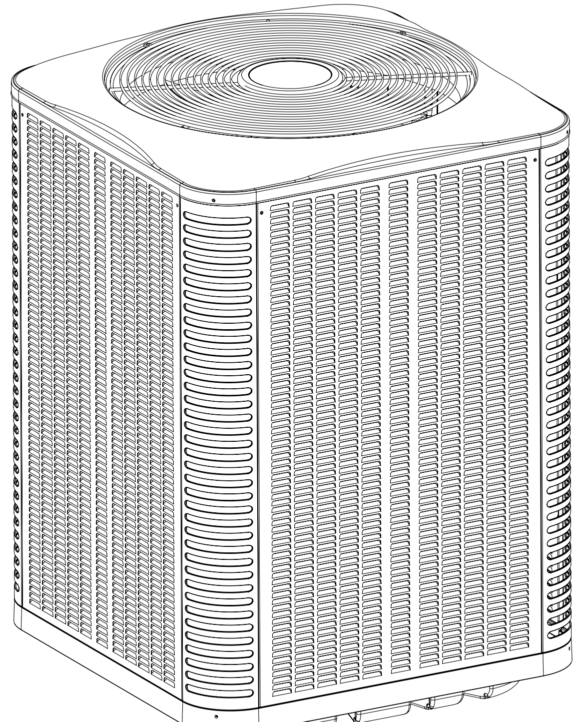
MAYTAG®

TECHNICAL SPECIFICATIONS

Model CSA1BF Series



M120 Product Line

Extra High Efficiency Air Conditioner
16 SEER — 2 - 5 Ton Capacity

The CSA1BF Series of Maytag air conditioners offers exceptional performance. The unit, when combined with our engineered coils or air handlers, offers a line of quality, 16 SEER split system cooling equipment.

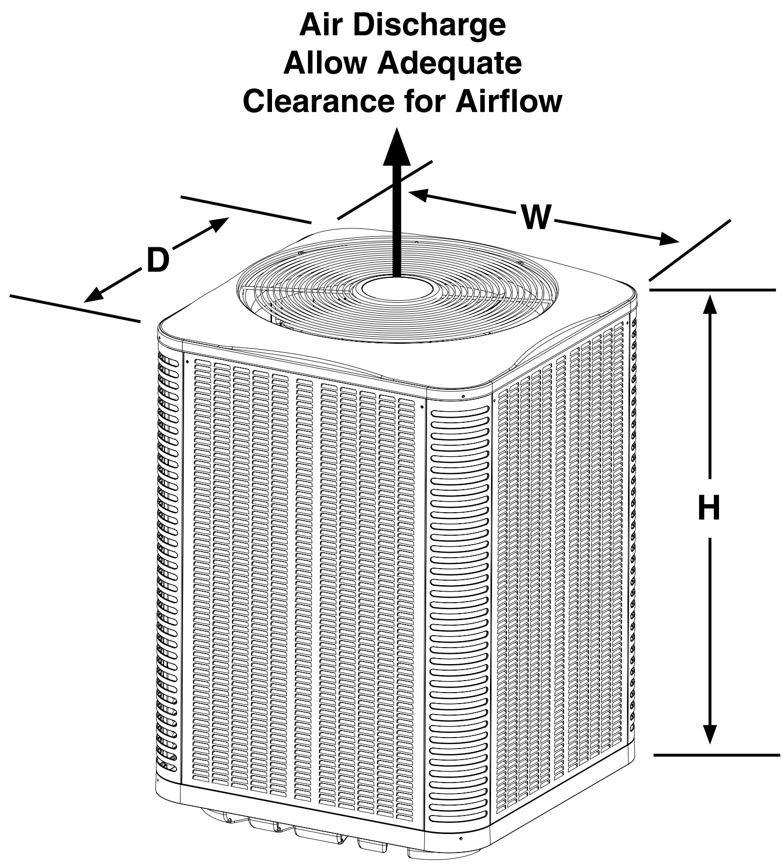
Features and Benefits

- **Copeland Scroll Ultra Tech™ Compressor –** The Ultra Tech Compressor operates with 2 stages of cooling capacity to provide superior comfort and efficiency. Copeland's proven and simple design equates to years of comfort and reliability for the homeowner with virtually silent operation.
- **Composite Base Pan –** Absorbs sound and is corrosion resistant. Composite is also stronger and lighter than steel.
- **Removable Top Grille Assembly –** Allows ease of service from the top without disconnecting fan motor leads.
- **Low Pressure Switch –** Loss of charge protection ensures long compressor life. Auto-reset feature prevents nuisance service visits.
- **High Pressure Switch –** Protects against abnormally high system pressures. Auto-reset feature prevents nuisance service visits.
- **Liquid Line Filter Drier –** Included with unit, field installed.
- **One Piece Top/Orifice –** Designed for maximum airflow and quiet operation.
- **Easy Compressor and Control Access –** Designed to make servicing easier for the contractor, access panels are provided to all controls and the compressor from the side of the unit.
- **Micro-Channel –** All aluminum coils in 2-4 ton models which provides high corrosion resistance.
- **Quiet Plus™ Sound Package –** Consists of a Quiet Plus compressor sound blanket and a swept wing fan blade. Both have been engineered to significantly reduce unwanted noise.
- **Servicer-Friendly Jacket –** Side panels can be easily removed and replaced without removing the top grill.

DIMENSIONS/OUTDOOR SECTION

14 SEER — High Efficiency

CSA1BF	24K	36K	48K	60K
H	36.5	37.25	41.25	45.25
W	23.75	31.75	31.75	31.75
D	23.75	31.75	31.75	31.75



IDENTIFICATION CODE

C S A 1 B F 4 M 2 S N 24 K

Jacket Style

Split System

A - Air Conditioner
H - Heat Pump

Design Series

B - Brazed
Q - Quick Connect

D - 13 SEER
E - 14 SEER
F - 16 SEER
G - 18-20 SEER
X - Export

Refrigerant
4 - R-410a

M - Micro-Channel
C - Copper Coil

Stages
1 - Single
2 - Two
V - Inverter

Compressor
S - Scroll
R - Rotary
E - Recip

Metering Device
N - None
X - TXV
P - Piston
E - EXV

Size (MBTU)

Voltages
C - 208/230-3-60
D - 460-3-60
E - 220/240-1-50
G - 380/420-3-50
K - 208/230-1-60

PHYSICAL AND ELECTRICAL SPECIFICATIONS / OUTDOOR UNITS

16 SEER — Extra High Efficiency — Single Phase

Model Number CSA1BF			24K	36K	48K	60K
Electrical Data	Volts-Cycles-Phase (1)		208/230-60-1			
	Total Amps		12.3	16.5	23.7	31.4
	Delay Fuse Max. (2)		25	35	50	60
	Min. Circuit Ampacity		15.3	20.3	29.0	38.6
Component Data	Fan Motor	Type	PSC		BLDC	
		Amps	0.7	1.3	2.6	2.6
		HP	0.10	0.25	0.33	0.33
	Compressor Data	RLA	11.6	15.2	21.1	28.8
		LRA	58.3	83.0	104.0	152.9
Refrigerant suction line O.D. NOTE: Liquid line is 3/8″ O.D. for entire length.		0-24 ft.	3/4″	7/8″(4)	7/8″	7/8″
		25-39 ft.	7/8″ (3)	1-1/8″ (3)	1-1/8″ (3)	1-1/8″ (3)
		40-75 ft.	7/8″ (3)	1-1/8″ (3)	1-1/8″ (3)	1-1/8″ (3)
Approximate Weight (lbs.)		Net	133	198	230	251
		Ship	141	209	242	264
Sound Rating db			69	72	72	74

(1) Operating Voltage Range: 187v min. - 253v max.
(2) HACR Type Circuit Breakers may be used.
(3) Requires 7/8″ to 1-1/8″ reducer from line to unit.
(4) Use of a 3/4″ lineset will result in approximately 2% loss in capacity.
(5) Additional charge for line sets above 15 feet.
Values based on suction line as follows with 3/8″ liquid line.
a) 3/4″ = 0.6 oz. per additional foot.
b) 7/8″ = 0.7 oz. per additional foot.
c) 1 1/8″ = 0.8 oz. per additional foot.
(6) For additional charging instructions please refer to the QRD.

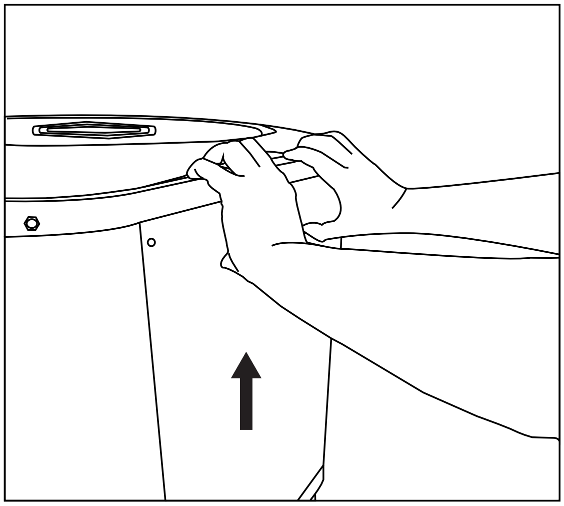
ACCESSORIES - CONDENSING UNIT

Start Assist Kit - 912933
Provides additional starting torque for the compressor motor when operating with low line voltage or high operating temperatures.

Extreme Wind Condition Mounting Kit - 1017210

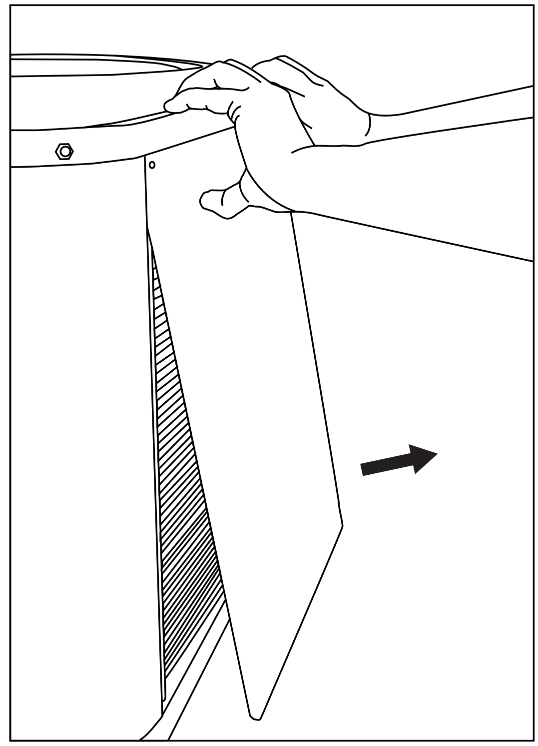
Low Ambient Kit - 918837

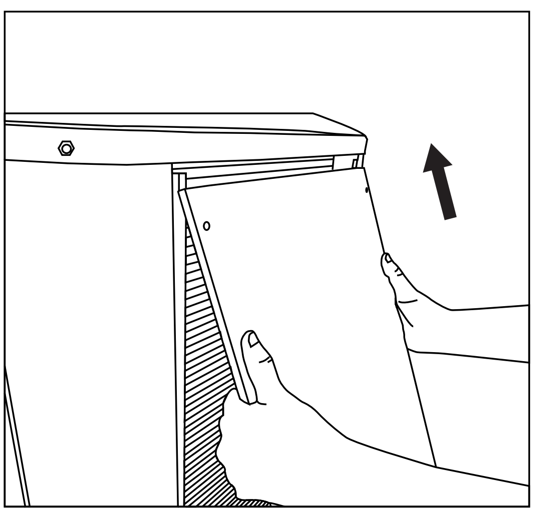
PANEL REMOVAL AND REPLACEMENT INSTRUCTIONS

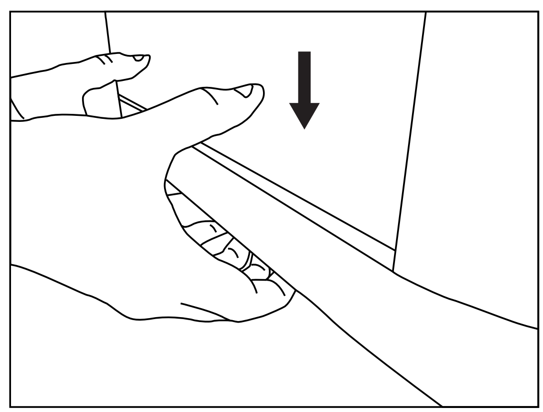


Removing Panels:

1. Remove screws.
2. Pull up on panel.
3. Rotate bottom of panel out.
4. Pull panel off.







Reinstalling Panels:

1. Place panel back in towards top of unit.
2. Rotate bottom of panel inwards.
3. Push panel down until it fills gap at bottom of unit.
4. Replace screws.

SYSTEM HEATING & COOLING CAPACITIES

16 SEER — Extra High Efficiency — Single Phase

Outdoor Unit	Indoor Unit	High Speed Capacity (BTU/h)	SEER	EER	Low Speed SCFM	High Speed SCFM
CSA1BF4M2SN024K	C7B(A,H)MX24(C,U)-B + MB7VM(*)B	24,000	16	13.0	600	870
CSA1BF4M2SN036K	C7B(A,H)MX36(C,U)-B + MB7VM(*)B	35,000	16	12.5	810	1,170
CSA1BF4M2SN048K	C7B(A,H)MX48(C,U)-C + MB7VM(*)C	46,500	16	12.5	990	1,400
CSA1BF4M2SN060K	C7B(A,H)MX60(C,U)-C + MB7VM(*)C	56,000	16	12.5	1,200	1,700

Outdoor Unit	Indoor Unit	High Speed Capacity (BTU/h)	SEER	EER	Low Speed SCFM	High Speed SCFM
CSA1BF4M2SN024K	B6VMMX24K-B	24,000	16	13.0	600	870
CSA1BF4M2SN036K	B6VMMX36K-B	35,000	16	12.5	810	1,170
CSA1BF4M2SN048K	B6VMMX48K-C	46,500	16	12.5	990	1,400
CSA1BF4M2SN060K	B6VMMX60K-C	56,000	16	12.5	1,200	1700,

See current AHRI Directory for certified combinations and ratings.
www.ahridirectory.org

COPPER WIRE SIZE — AWG (1% Voltage Drop)				
Supply Wire Length-Feet				Supply Circuit Ampacity
200	150	100	50	
6	8	10	14	15
4	6	8	12	20
4	6	8	10	25
4	4	6	10	30
3	4	6	8	35
3	4	6	8	40
2	3	4	6	45
2	3	4	6	50

Wire Size based on N.E.C. for 60° type copper conductors.

COOLING EXPANDED RATINGS WITH VARIABLE SPEED BLOWER

CSA1BF4M2SN24K with C7B(A,H)MX24(C,U)-B + VSB - High Speed
CSA1BF4M2SN24K with B6VMMX24K-B - High Speed

O.D.T			65°F			75°F			85°F			95°F			105°F			115°F		
CFM	E.D.B.	E.W.B.	T.C.	S.C.	K.W.	T.C.	S.C.	K.W.	T.C.	S.C.	K.W.	T.C.	S.C.	K.W.	T.C.	S.C.	K.W.	T.C.	S.C.	K.W.
700	80	62	24.8	19.7	1.33	24.0	19.6	1.47	23.1	19.7	1.62	22.0	19.4	1.79	20.9	20.4	1.98	19.8	19.2	2.20
	80	67	26.9	15.8	1.35	25.9	15.8	1.49	24.9	15.9	1.64	23.7	15.6	1.80	22.5	15.4	1.99	21.2	14.5	2.22
	80	72	29.7	12.3	1.37	28.6	12.3	1.51	27.4	12.5	1.66	26.1	12.3	1.82	24.6	12.1	2.02	22.8	12.4	2.25
	75	62	24.5	16.0	1.33	23.7	15.9	1.47	22.8	16.1	1.62	21.7	15.8	1.78	20.6	14.6	1.97	19.4	15.6	2.20
800	80	62	25.5	21.2	1.35	24.7	21.7	1.49	23.7	21.2	1.64	22.6	21.0	1.80	21.6	20.9	2.00	20.6	20.4	2.22
	80	67	27.6	16.9	1.36	26.6	17.4	1.51	25.4	16.9	1.65	24.3	16.8	1.82	23.0	16.8	2.01	21.6	16.8	2.24
	80	72	30.3	13.0	1.39	29.1	13.6	1.53	27.8	13.2	1.67	26.2	13.1	1.84	24.7	13.2	2.03	23.2	13.2	2.27
	75	62	25.2	17.1	1.35	24.3	17.5	1.49	23.3	17.1	1.63	22.2	16.9	1.80	21.1	17.2	1.99	19.8	17.2	2.22
900	80	62	26.2	23.0	1.37	25.3	23.2	1.51	24.4	22.6	1.66	23.4	22.3	1.82	22.4	21.6	2.01	21.2	21.1	2.25
	80	67	28.1	18.1	1.38	27.1	18.4	1.52	25.9	17.9	1.67	24.7	17.9	1.83	23.3	17.7	2.03	21.9	18.2	2.26
	80	72	30.6	14.0	1.40	29.2	14.3	1.54	27.9	13.8	1.69	26.6	13.8	1.85	25.1	13.7	2.05	23.5	13.8	2.29
	75	62	25.7	18.4	1.36	24.8	18.5	1.50	23.8	18.6	1.65	22.7	18.5	1.82	21.5	18.3	2.01	20.2	18.3	2.23

CSA1BF4M2SN24K with C7B(A,H)MX24(C,U)-B + VSB - Low Speed
CSA1BF4M2SN24K with B6VMMX24K-B - Low Speed

O.D.T			65°F			75°F			85°F			95°F			105°F			115°F		
CFM	E.D.B.	E.W.B.	T.C.	S.C.	K.W.	T.C.	S.C.	K.W.	T.C.	S.C.	K.W.	T.C.	S.C.	K.W.	T.C.	S.C.	K.W.	T.C.	S.C.	K.W.
470	80	62	17.9	14.1	0.91	17.5	14.1	1.03	16.8	14.2	1.17	16.0	13.9	1.32	15.0	14.6	1.50	14.1	13.7	1.69
	80	67	19.6	11.5	0.90	19.0	11.5	1.02	18.2	11.6	1.16	17.3	11.4	1.31	16.3	11.2	1.49	15.2	10.4	1.68
	80	72	21.7	8.9	0.88	21.1	9.0	1.00	20.2	9.1	1.14	19.1	8.9	1.30	18.0	8.8	1.48	16.8	9.0	1.68
	75	62	17.7	11.6	0.91	17.3	11.6	1.04	16.6	11.7	1.17	15.8	11.6	1.33	14.8	10.6	1.50	13.8	11.4	1.69
535	80	62	18.5	15.2	0.91	18.0	15.6	1.03	17.3	15.3	1.17	16.4	15.1	1.33	15.5	15.0	1.50	14.7	14.6	1.69
	80	67	20.0	12.2	0.90	19.4	12.7	1.02	18.6	12.4	1.16	17.7	12.2	1.31	16.6	12.3	1.49	15.6	12.3	1.69
	80	72	22.2	9.4	0.88	21.5	9.9	1.00	20.6	9.6	1.14	19.5	9.5	1.30	18.3	9.6	1.48	17.0	9.6	1.68
	75	62	18.2	12.5	0.91	17.7	12.9	1.04	17.0	12.6	1.17	16.1	12.4	1.33	15.2	12.3	1.50	14.1	12.2	1.69
600	80	62	19.0	16.5	0.91	18.5	16.7	1.03	17.8	16.4	1.17	17.0	16.1	1.32	16.1	15.6	1.50	15.2	15.1	1.69
	80	67	20.5	13.1	0.90	19.8	13.4	1.02	19.0	13.2	1.16	18.0	13.2	1.31	16.9	13.0	1.49	15.8	13.0	1.69
	80	72	22.6	10.1	0.88	21.9	10.4	1.00	20.9	10.1	1.14	19.7	10.1	1.30	18.3	10.0	1.48	17.1	10.1	1.68
	75	62	18.7	13.5	0.92	18.1	13.6	1.04	17.4	13.3	1.17	16.5	13.2	1.33	15.5	13.1	1.50	14.4	13.0	1.70

CSA1BF4M2SN36K with C7B(A,H)MX36(C,U)-B + VSB - High Speed
CSA1BF4M2SN36K with B6VMMX36K-B - High Speed

O.D.T			65°F			75°F			85°F			95°F			105°F			115°F		
CFM	E.D.B.	E.W.B.	T.C.	S.C.	K.W.	T.C.	S.C.	K.W.	T.C.	S.C.	K.W.	T.C.	S.C.	K.W.	T.C.	S.C.	K.W.	T.C.	S.C.	K.W.
1050	80	62	35.9	27.1	2.01	34.6	27.0	2.18	33.2	27.1	2.38	31.7	26.7	2.62	30.1	29.3	2.92	28.4	27.6	3.24
	80	67	39.3	22.4	2.04	37.7	22.3	2.21	36.2	22.6	2.41	34.4	22.2	2.66	32.7	21.8	2.94	30.8	20.4	3.25
	80	72	43.1	17.4	2.09	41.4	17.4	2.25	39.6	17.7	2.45	37.8	17.4	2.69	35.9	17.2	2.96	33.8	17.6	3.27
	75	62	35.8	22.8	2.00	34.4	22.6	2.17	33.0	22.8	2.38	31.5	22.3	2.62	29.8	20.6	2.92	28.0	22.2	3.23
1200	80	62	36.8	29.1	2.05	35.6	30.8	2.21	34.1	30.3	2.41	32.6	30.1	2.66	31.1	30.0	2.95	29.7	29.4	3.27
	80	67	40.2	23.9	2.09	38.7	24.6	2.24	37.0	24.0	2.45	35.2	23.7	2.69	33.4	23.8	2.97	31.4	23.8	3.28
	80	72	44.1	18.3	2.13	42.3	19.2	2.29	40.4	18.6	2.49	38.6	18.5	2.72	36.5	18.7	2.99	34.3	18.9	3.31
	75	62	36.7	24.2	2.04	35.3	24.8	2.21	33.8	24.2	2.41	32.2	23.9	2.66	30.4	23.9	2.95	28.6	23.8	3.27
1350	80	62	37.8	32.8	2.08	36.4	33.1	2.25	35.0	32.4	2.45	33.8	32.1	2.71	32.3	31.2	2.99	30.6	30.5	3.31
	80	67	41.0	25.6	2.12	39.4	25.9	2.28	37.6	25.3	2.48	35.8	25.3	2.73	33.9	25.1	3.00	31.8	25.3	3.32
	80	72	44.8	19.6	2.17	43.0	20.1	2.32	41.0	19.5	2.52	39.1	19.6	2.75	36.9	19.6	3.02	34.6	19.9	3.34
	75	62	37.5	25.9	2.08	36.0	26.2	2.25	34.4	25.6	2.45	32.8	25.4	2.69	31.0	25.2	2.98	29.0	25.3	3.30

CSA1BF4M2SN48K with C7B(A,H)MX36(C,U)-B + VSB - Low Speed
CSA1BF4M2SN36K with B6VMMX36K-B - Low Speed

O.D.T			65°F			75°F			85°F			95°F			105°F			115°F		
CFM	E.D.B.	E.W.B.	T.C.	S.C.	K.W.	T.C.	S.C.	K.W.	T.C.	S.C.	K.W.	T.C.	S.C.	K.W.	T.C.	S.C.	K.W.	T.C.	S.C.	K.W.
715	80	62	26.0	19.8	1.29	24.9	20.1	1.42	23.7	20.2	1.59	22.5	19.9	1.80	21.3	20.9	2.04	20.0	19.7	2.31
	80	67	28.6	16.3	1.27	27.3	16.2	1.40	26.0	16.4	1.58	24.7	16.1	1.79	23.3	15.8	2.03	21.8	14.7	2.30
	80	72	31.5	12.7	1.24	30.2	12.7	1.38	28.9	12.9	1.56	27.4	12.6	1.77	25.9	12.4	2.02	24.1	12.7	2.30
	75	62	25.9	16.6	1.29	24.7	16.4	1.42	23.5	16.5	1.60	22.3	16.1	1.80	21.0	14.7	2.04	19.6	15.9	2.32
815	80	62	26.8	22.0	1.29	25.6	22.3	1.42	24.4	21.9	1.60	23.2	21.7	1.81	22.2	21.4	2.04	21.0	20.8	2.32
	80	67	29.3	17.5	1.27	28.0	17.9	1.41	26.7	17.5	1.58	25.3	17.3	1.79	23.9	17.3	2.04	22.3	17.2	2.31
	80	72	32.3	13.4	1.24	31.0	14.1	1.39	29.6	13.6	1.56	28.1	13.5	1.78	26.5	13.6	2.02	24.5	13.6	2.32
	75	62	26.6	17.7	1.29	25.4	18.0	1.43	24.2	17.6	1.60	22.9	17.3	1.81	21.5	17.2	2.05	20.1	17.1	2.32
915	80	62	27.5	23.8	1.29	26.3	24.0	1.43	25.2	23.4	1.60	24.2	23.0	1.81	23.0	22.3	2.05	21.7	21.6	2.32
	80	67	29.9	18.8	1.27	28.6	19.0	1.41	27.3	18.5	1.59	25.9	18.5	1.80	24.3	18.3	2.04	22.6	18.4	2.32
	80	72	33.0	14.4	1.25	31.6	14.7	1.39	30.2	14.3	1.57	28.6	14.3	1.78	26.9	14.3	2.03	25.0	14.4	2.33
	75	62	27.2	19.0	1.29	25.9	19.1	1.43	24.7	18.6	1.61	23.4	18.5	1.81	22.0	18.8	2.05	20.5	18.8	2.33