1.5 Technical Data

1.5.1 Parameter List

Model			GRS-CQ4.0PdG/NhH-E	GRS-CQ6.0PdG/NhH-E	GRS-CQ8.0PdG/NhH-E	GRS-CQ10PdG/NhH-E
Product Code			ER01001770	ER01001780	ER01001760	ER01001730
Capacity*1	Cooling (floor cooling)	kW	3.8	5.8	7.0	8.5
	Heating (floor heating)	kW	4.0	6.0	8.0	9.5
Power Input*1	Cooling (floor cooling)	kW	0.82	1.32	1.75	2.24
	Heating (floor heating)	kW	0.78	1.20	1.70	2.07
EER*1(floor cooling)		W/W	4.6	4.4	4.0	3.8
COP*1(floor heating)		W/W	5.1	5.0	4.7	4.6
Capacity*2	Cooling(for Fan coil)	kW	3.15	4.09	5.3	6.5
	Heating (Fan coil or Radiator)	kW	4	5.9	8	9.5
Power Input*2	Cooling(for Fan coil)	kW	0.92	1.28	1.73	2.27
	Heating (Fan coil or Radiator)	kW	1.02	1.51	2.14	2.64
EER*2(for Fan coil)		W/W	3.4	3.2	3.1	2.9
COP*2(Fan coil or Radiator)		W/W	3.9	3.9	3.7	3.6
Refrigerant charge volume		kg	1.0	1.0	1.6	1.6
Sanitary water Temperature		°C	40~80°C			

Model			GRS-CQ4.0Pd/NhH-E(O)	GRS-CQ6.0Pd/NhH-E(O)	GRS-CQ8.0Pd/NhH-E(O)	GRS-CQ10Pd/NhH-E(O)
Product Code			ER010W1510	ER010W1500	ER010W1480	ER010W1730
Sound Pressure Level	Cooling	dB(A)	52	52	55	55
	Heating	dB(A)	52	52	55	55
Dimensions (W×D×H)	Outline	mm	975×396×702	975×396×702	982×427×787	982×427×787
	Packaged	mm	1028×458×830	1028×458×830	1097×478×937	1094×478×937
Net weight/Gross weight		kg	55/65	55/65	82/92	82/92

Model			GRS-CQ4.0PdG/NhH-E(I)	GRS-CQ6.0PdG/NhH-E(I)	GRS-CQ8.0PdG/NhH-E(I)	GRS-CQ10PdG/NhH-E(I)
Product Code			ER010N1770	ER010N1780	ER010N1760	ER010N1730
Sound Pressure Level	Cooling	dB(A)	29	29	29	29
	Heating	dB(A)	29	29	29	29
Dimensions (W×D×H)	Outline	mm	600×600×1756	600×600×1756	600×600×1756	600×600×1756
	Packaged	mm	803×683×2000	803×683×2000	803×683×2000	803×683×2000
Net weight/Gross weight		kg	210/233	210/233	210/233	210/233

Notes_Notes_

(a) "*1" indicates the capacity and power input are tested based on the conditions below:

Cooling:

Indoor Water Temperature: 23°C/18°C; Outdoor Temperature: 35°CDB/24°CWB

Heating:

Indoor Water Temperature: 30°C/35°C; Outdoor Temperature: 7°CDB/6°CWB

(b) "*2" indicates the capacity and power input are tested based on the conditions below:

Cooling:

Indoor Water Temperature: 12°C/7°C; Outdoor Temperature: 35°CDB/24°CWB

Heating:

Indoor Water Temperature: 40°C/45°C; Outdoor Temperature: 7°CDB/6°CWB

1.5.2 Nominal Working Conditions

Item	Water Side		Heat Source/User Side	
	Entering Water Temp (°C)	Leaving Water Temperature (°C)	Dry Bulb Temperature (°C)	Wet Bulb Temperature (°C)
FCU Cooling	12	7	35	—
FCU Heating	40	45	7	6
Floor Cooling	23	18	35	—
Floor Heating	30	35	7	6
Water Heating	53	-	7	6

1.5.3 Operation Range

Item	Water Side	Heat Source/User Side
	Leaving Water Temperature (°C)	Environment Dry Bulb Temperature (°C)
Cooling	7~25	10~48
Heating	20~60	-25~35
Water Heating	40~80 (Water Tank Temperature)	-25~45

Note: when operating conditions are out of the range listed above, please contact GREE.

1.5.4 Temperature sensor parameter

Displayed Name	Inspection range(°C)	Nominal working datas			Remark
		Cooling	Heating	Hot water	
T-outdoor	-30~150	8~50	-27~37	-27~45	temperature sensor resistance 15K
T-suction	-30~150	5~30	-25~20	-25~30	temperature sensor resistance 20K
T-discharge	-30~150	30~102	35~102	35~102	temperature sensor resistance 50K
T-defrost	-30~150	20~57	-25~30	-25~40	temperature sensor resistance 20K
T-water in PE	-30~150	10~30	20~55	20~55	temperature sensor resistance 20K
T-water out PE	-30~150	5~25	25~60	25~60	temperature sensor resistance 20K
T-optional water Sen.	-30~150	5~25	25~60	25~60	temperature sensor resistance 50K
T-tank ctrl.	-30~150	/	/	10~80	temperature sensor resistance 50K
T-floor debug	-30~150	/	25~45	/	/
Debug time	-30~150	/	12~72	/	/
T-liquid pipe	-30~150	5~25	20~57	20~57	temperature sensor resistance 20K
T-gas pipe	-30~150	30~102	35~102	35~102	temperature sensor resistance 20K
T-economizer in	-30~150	no EVI under cooling	-20~55	-20~55	temperature sensor resistance 20K
T-economizer out	-30~150	no EVI under cooling	-20~55	-20~55	temperature sensor resistance 20K
T-remote room	-30~150	18~30	18~30	18~30	/
Dis. Pressure	-40~70	25~60	25~62	25~62	/
T-weather depend	-30~150	7~25	25~60	/	based on calculation

1.5.5 Electric Data

Model	Power Supply	Air Break Switch	Minimum Section Area of Earth Wire	Minimum Section Area of Power Wire
	V, Ph, Hz	A	mm^2	mm^2
GRS-CQ4.0PdG/NhH-E(I)	230VAC, 1Ph, 50Hz	20	4.0	2*4.0
GRS-CQ6.0PdG/NhH-E(I)		20	4.0	2*4.0
GRS-CQ8.0PdG/NhH-E(I)		40	6.0	2*6.0
GRS-CQ10PdG/NhH-E(I)		40	6.0	2*6.0
GRS-CQ4.0Pd/NhH-E(O)	230VAC, 1Ph, 50Hz	16	1.5	2*1.5
GRS-CQ6.0Pd/NhH-E(O)		16	1.5	2*1.5
GRS-CQ8.0Pd/NhH-E(O)		25	4.0	2*4.0
GRS-CQ10Pd/NhH-E(O)		25	4.0	2*4.0

Notes

(a) Leakage Switch is necessary for additional installation. If circuit breakers with leakage protection are in use, action response time must be less than 0.1 second, leakage circuit must be 30mA.

(b) The above selected power cable diameters are determined based on assumption of distance from the distribution cabinet to the unit less than 75m. If cables are laid out in a distance of 75m to 150m, diameter of power cable must be increased to a further grade.

(c) The power supply must be of rated voltage of the unit and special electrical line for air-conditioning.

(d) All electrical installation shall be carried out by professional technicians in accordance with the local laws and regulations.

(e) Ensure safe grounding and the grounding wire shall be connected with the special grounding equipment of the building and must be installed by professional technicians.

(f) The specifications of the breaker and power cable listed in the table above are determined based on the maximum power (maximum amps) of the unit.

(g) The specifications of the power cable listed in the table above are applied to the conduit-guarded multi-wire

copper cable (like, YJV XLPE insulated power cable) used at 40°C and resistible to 90°C (see IEC 60364-5-52). If the working condition changes, they should be modified according to the related national standard.

(h) The specifications of the breaker listed in the table above are applied to the breaker with the working temperature at 40°C. If the working condition changes, they should be modified according to the related national standard.

(i) A circuit breaker must be added to the fixed line. The circuit breaker is all-pole disconnected and the breaking distance of the contact is at least 3mm.

1.5.6 Capacity Correction

◆ Cooling Capacity Correction

Computer of actual cooling capacity: actual cooling capacity = nominal cooling capacity x cooling capacity correction coefficient.

Cooling Capacity Correction_4									
Outflow Water(°C)	Ambient Temp.(°C)								
	10	15	20	25	30	35	40	45	48
7	0.82	0.91	0.96	1.02	1.04	1.00	0.91	0.71	0.60
8	0.84	0.93	0.98	1.04	1.06	1.02	0.93	0.72	0.61
9	0.85	0.95	1.00	1.06	1.08	1.04	0.95	0.74	0.62
10	0.87	0.96	1.02	1.08	1.10	1.06	0.96	0.75	0.63
11	0.88	0.98	1.04	1.10	1.12	1.08	0.98	0.76	0.65
12	0.90	1.00	1.06	1.12	1.13	1.10	1.00	0.78	0.66
13	0.91	1.02	1.07	1.13	1.16	1.11	1.02	0.79	0.67
14	0.93	1.03	1.09	1.15	1.18	1.13	1.03	0.80	0.68
15	0.94	1.05	1.10	1.17	1.20	1.15	1.05	0.82	0.69
18	0.99	1.11	1.16	1.24	1.26	1.21	1.11	0.86	0.72
20	1.02	1.13	1.20	1.28	1.30	1.25	1.13	0.89	0.75
23	1.07	1.18	1.25	1.33	1.36	1.31	1.18	0.93	0.78
25	1.10	1.22	1.29	1.37	1.40	1.34	1.22	0.95	0.80

Cooling Capacity Correction_6									
Outflow Water(°C)	Ambient Temp.(°C)								
	10	15	20	25	30	35	40	45	48
7	0.82	0.91	0.96	1.02	1.04	1.00	0.91	0.71	0.60
8	0.85	0.95	1.00	1.06	1.08	1.04	0.95	0.74	0.62
9	0.89	0.98	1.03	1.09	1.11	1.07	0.98	0.77	0.65
10	0.91	1.01	1.07	1.13	1.15	1.11	1.01	0.79	0.67
11	0.94	1.05	1.10	1.17	1.20	1.15	1.05	0.81	0.69
12	0.97	1.08	1.14	1.21	1.24	1.19	1.08	0.84	0.71
13	1.01	1.12	1.17	1.25	1.27	1.22	1.12	0.87	0.73
14	1.04	1.14	1.21	1.29	1.31	1.26	1.14	0.90	0.75
15	1.06	1.18	1.25	1.33	1.35	1.30	1.18	0.92	0.78
18	1.16	1.28	1.35	1.44	1.47	1.41	1.28	1.00	0.85
20	1.21	1.35	1.43	1.51	1.54	1.48	1.35	1.06	0.89
23	1.31	1.45	1.53	1.63	1.66	1.60	1.45	1.13	0.96
25	1.37	1.52	1.60	1.70	1.74	1.67	1.52	1.19	1.00

Cooling Capacity Correction_8									
Outflow Water(°C)	Ambient Temp.(°C)								
	10	15	20	25	30	35	40	45	48
7	0.82	0.91	0.96	1.02	1.04	1.00	0.91	0.71	0.60
8	0.85	0.94	0.99	1.05	1.07	1.03	0.94	0.73	0.62

Cooling Capacity Correction_8									
Outflow Water(°C)	Ambient Temp.(°C)								
	10	15	20	25	30	35	40	45	48
9	0.86	0.96	1.01	1.08	1.10	1.06	0.96	0.75	0.63
10	0.89	0.99	1.04	1.11	1.13	1.09	0.99	0.77	0.65
11	0.92	1.02	1.08	1.14	1.17	1.12	1.02	0.79	0.67
12	0.94	1.05	1.11	1.18	1.19	1.15	1.05	0.82	0.69
13	0.96	1.07	1.13	1.19	1.21	1.17	1.07	0.83	0.70
14	0.99	1.10	1.15	1.22	1.25	1.20	1.10	0.85	0.72
15	1.01	1.13	1.18	1.26	1.28	1.23	1.13	0.88	0.74
18	1.09	1.20	1.27	1.35	1.37	1.32	1.20	0.94	0.80
20	1.13	1.25	1.32	1.40	1.43	1.38	1.25	0.97	0.83
23	1.21	1.34	1.41	1.49	1.52	1.47	1.34	1.04	0.88
25	1.25	1.39	1.47	1.55	1.58	1.52	1.39	1.08	0.91

Cooling Capacity Correction_10									
Outflow Water(°C)	Ambient Temp.(°C)								
	10	15	20	25	30	35	40	45	48
7	0.82	0.91	0.96	1.02	1.04	1.00	0.91	0.71	0.60
8	0.84	0.94	0.99	1.05	1.07	1.03	0.94	0.73	0.62
9	0.87	0.96	1.01	1.08	1.10	1.06	0.96	0.76	0.63
10	0.89	0.98	1.03	1.11	1.13	1.08	0.98	0.77	0.65
11	0.91	1.01	1.07	1.13	1.16	1.11	1.01	0.78	0.67
12	0.94	1.03	1.10	1.16	1.18	1.14	1.03	0.81	0.69
13	0.96	1.06	1.13	1.19	1.21	1.17	1.06	0.83	0.70
14	0.99	1.10	1.15	1.22	1.25	1.20	1.10	0.85	0.72
15	1.01	1.12	1.18	1.26	1.28	1.23	1.12	0.88	0.74
18	1.08	1.19	1.25	1.33	1.37	1.31	1.19	0.93	0.79
20	1.13	1.25	1.32	1.40	1.43	1.37	1.25	0.97	0.82
23	1.19	1.32	1.39	1.48	1.51	1.45	1.32	1.02	0.87
25	1.23	1.37	1.44	1.54	1.57	1.51	1.37	1.07	

◆ EER Correction

Computer of actual EER: actual EER = nominal EER x EER correction coefficient.

EER Correction_4									
Outflow Water(°C)	Ambient Temp.(°C)								
	10	15	20	25	30	35	40	45	48
7	1.36	1.31	1.27	1.21	1.11	1.00	0.83	0.61	0.49
8	1.40	1.35	1.31	1.25	1.14	1.03	0.85	0.63	0.51
9	1.45	1.39	1.35	1.29	1.18	1.06	0.89	0.65	0.52
10	1.49	1.43	1.39	1.32	1.21	1.10	0.91	0.67	0.53
11	1.53	1.48	1.43	1.36	1.25	1.13	0.93	0.69	0.55
12	1.58	1.52	1.47	1.40	1.29	1.16	0.96	0.71	0.56
13	1.62	1.56	1.51	1.44	1.33	1.19	0.99	0.73	0.58
14	1.67	1.60	1.55	1.48	1.36	1.22	1.01	0.74	0.60
15	1.70	1.65	1.59	1.52	1.39	1.25	1.04	0.77	0.61
18	1.83	1.77	1.71	1.64	1.50	1.35	1.12	0.83	0.67
20	1.92	1.86	1.80	1.72	1.57	1.41	1.18	0.87	0.70
23	2.05	1.98	1.91	1.83	1.68	1.51	1.26	0.92	0.74
25	2.14	2.06	2.00	1.90	1.75	1.57	1.30	0.96	0.77

EER Correction 6								
Outflow Water(°C)	Ambient Temp.(°C)							
	10	15	20	25	30	35	40	45	48
7	1.36	1.31	1.27	1.21	1.11	1.00	0.83	0.61	0.49
8	1.40	1.35	1.31	1.25	1.14	1.03	0.86	0.63	0.51
9	1.46	1.40	1.36	1.29	1.19	1.07	0.89	0.65	0.52
10	1.50	1.44	1.40	1.33	1.22	1.10	0.91	0.68	0.54
11	1.54	1.49	1.44	1.38	1.27	1.14	0.94	0.69	0.55
12	1.59	1.54	1.49	1.42	1.30	1.17	0.97	0.72	0.58
13	1.64	1.58	1.53	1.46	1.34	1.21	1.00	0.73	0.59
14	1.69	1.63	1.58	1.50	1.38	1.24	1.03	0.76	0.61
15	1.73	1.67	1.62	1.54	1.41	1.28	1.06	0.78	0.62
18	1.87	1.80	1.75	1.67	1.53	1.38	1.14	0.84	0.68
20	1.97	1.90	1.84	1.75	1.61	1.45	1.20	0.89	0.71
23	2.11	2.03	1.98	1.88	1.72	1.55	1.29	0.94	0.76
25	2.20	2.12	2.06	1.97	1.80	1.62	1.35	0.99	0.80

EER Correction_8								
Outflow Water(°C)	Ambient Temp.(°C)							
	10	15	20	25	30	35	40	45	48
7	1.36	1.31	1.27	1.21	1.11	1.00	0.83	0.61	0.49
8	1.39	1.34	1.31	1.24	1.14	1.03	0.85	0.62	0.50
9	1.44	1.38	1.34	1.28	1.17	1.06	0.88	0.64	0.51
10	1.47	1.42	1.38	1.31	1.20	1.08	0.90	0.65	0.53
11	1.51	1.46	1.42	1.35	1.24	1.11	0.93	0.68	0.55
12	1.55	1.49	1.45	1.37	1.27	1.14	0.95	0.70	0.56
13	1.59	1.54	1.49	1.42	1.30	1.17	0.98	0.71	0.57
14	1.63	1.57	1.52	1.45	1.33	1.20	1.00	0.73	0.58
15	1.68	1.61	1.56	1.48	1.36	1.23	1.02	0.75	0.60
18	1.78	1.72	1.67	1.58	1.45	1.31	1.08	0.80	0.64
20	1.86	1.79	1.74	1.66	1.52	1.37	1.13	0.83	0.67
23	1.97	1.89	1.84	1.76	1.61	1.45	1.20	0.89	0.71
25	2.05	1.98	1.91	1.82	1.67	1.51	1.25	0.92	0.74

EER Correction_10								
Outflow Water(°C)	Ambient Temp.(°C)							
	10	15	20	25	30	35	40	45	48
7	1.36	1.31	1.27	1.21	1.11	1.00	0.83	0.61	0.49
8	1.40	1.35	1.31	1.25	1.14	1.03	0.85	0.62	0.51
9	1.45	1.40	1.35	1.29	1.18	1.06	0.88	0.65	0.53
10	1.48	1.43	1.38	1.33	1.21	1.09	0.90	0.67	0.53
11	1.52	1.47	1.42	1.35	1.25	1.12	0.93	0.68	0.55
12	1.56	1.50	1.46	1.39	1.28	1.15	0.95	0.70	0.56
13	1.61	1.55	1.50	1.43	1.32	1.18	0.99	0.73	0.58
14	1.64	1.58	1.54	1.47	1.34	1.21	1.01	0.74	0.60
15	1.69	1.62	1.57	1.50	1.37	1.24	1.03	0.75	0.61
18	1.81	1.75	1.69	1.61	1.48	1.33	1.10	0.81	0.65
20	1.90	1.82	1.78	1.69	1.55	1.39	1.16	0.85	0.69
23	2.01	1.93	1.88	1.79	1.64	1.48	1.22	0.90	0.72
25	2.09	2.02	1.95	1.86	1.71	1.54	1.28	0.94	0.76

◆ Heating Capacity Correction

Computer of actual heating capacity: actual heating capacity = nominal heating capacity x heating capacity correction coefficient.

Heating Capacity Correction_4/8/10														
Outflow Heated Water(°C)	Ambient Temp.(°C)													
	-25	-20	-15	-10	-7	-2	2	7	10	15	20	25	30	35
25	0.43	0.52	0.62	0.71	0.76	0.85	0.94	0.92	0.95	1.00	0.99	0.90	0.79	0.62
30	0.42	0.51	0.60	0.69	0.74	0.82	0.91	0.97	1.00	1.06	1.05	0.95	0.83	0.65
35	0.41	0.48	0.56	0.65	0.70	0.78	0.85	1.00	1.03	1.09	1.08	0.98	0.86	0.67
40	0.41	0.48	0.56	0.65	0.70	0.78	0.85	1.00	1.03	1.09	1.08	0.98	0.86	0.67
45	/	0.48	0.56	0.65	0.70	0.78	0.85	1.00	1.03	1.09	1.08	0.98	0.86	0.67
50	/	/	0.54	0.63	0.68	0.76	0.82	0.97	1.00	1.06	1.05	0.95	0.83	0.65
55	/	/	/	0.60	0.64	0.72	0.78	0.92	0.95	1.00	0.99	0.90	0.79	0.62
60	/	/	/	/	0.61	0.68	0.74	0.87	0.90	0.95	0.94	0.85	0.75	0.58

Heating Capacity Correction_6														
Outflow Heated Water(°C)	Ambient Temp.(°C)													
	-25	-20	-15	-10	-7	-2	2	7	10	15	20	25	30	35
25	0.49	0.59	0.70	0.80	0.86	0.96	1.06	1.04	1.07	1.13	1.12	1.02	0.89	0.70
30	0.45	0.54	0.64	0.73	0.79	0.87	0.97	1.03	1.06	1.12	1.11	1.01	0.89	0.69
35	0.42	0.49	0.57	0.66	0.71	0.80	0.87	1.02	1.05	1.11	1.10	1.00	0.88	0.68
40	0.41	0.48	0.57	0.66	0.71	0.79	0.86	1.01	1.04	1.10	1.09	0.99	0.87	0.68
45	/	0.48	0.56	0.65	0.70	0.78	0.85	1.00	1.03	1.09	1.08	0.98	0.86	0.67
50	/	/	0.55	0.64	0.69	0.77	0.84	0.99	1.02	1.08	1.07	0.97	0.85	0.66
55	/	/	/	0.64	0.69	0.76	0.83	0.98	1.01	1.07	1.06	0.96	0.84	0.66
60	/	/	/	/	0.68	0.76	0.82	0.97	1.00	1.06	1.05	0.95	0.83	0.65

◆ COP Correction

Computer of actual COP: actual COP = nominal COP x COP correction coefficient.

COP Correction_4														
Outflow Heated Water(°C)	Ambient Temp.(°C)													
	-25	-20	-15	-10	-7	-2	2	7	10	15	20	25	30	35
25	1.15	1.22	1.29	1.35	1.43	1.50	1.55	1.62	1.69	1.85	1.96	1.95	2.12	2.24
30	0.93	1.01	1.07	1.14	1.20	1.26	1.33	1.47	1.56	1.67	1.78	1.78	1.92	2.06
35	0.77	0.82	0.87	0.94	1.00	1.06	1.09	1.31	1.38	1.50	1.57	1.57	1.74	1.85
40	0.66	0.73	0.79	0.85	0.89	0.96	1.01	1.16	1.22	1.33	1.39	1.38	1.53	1.63
45	/	0.63	0.69	0.75	0.78	0.83	0.88	1.00	1.05	1.14	1.20	1.26	1.32	1.40
50	/	/	0.57	0.62	0.65	0.70	0.73	0.85	0.89	0.97	1.02	1.07	1.12	1.19
55	/	/	/	0.50	0.52	0.57	0.59	0.69	0.72	0.79	0.83	0.87	0.91	0.97
60	/	/	/	/	0.41	0.43	0.45	0.54	0.56	0.59	0.63	0.66	0.69	0.74

COP Correction_6/10														
Outflow Heated Water(°C)	Ambient Temp.(°C)													
	-25	-20	-15	-10	-7	-2	2	7	10	15	20	25	30	35
25	1.11	1.17	1.25	1.30	1.38	1.44	1.50	1.56	1.63	1.78	1.89	1.87	2.04	2.16
30	0.90	0.97	1.04	1.10	1.16	1.22	1.28	1.42	1.51	1.61	1.72	1.72	1.86	1.99
35	0.76	0.80	0.85	0.92	0.98	1.04	1.07	1.28	1.35	1.47	1.53	1.53	1.70	1.80
40	0.65	0.72	0.78	0.83	0.87	0.94	1.00	1.14	1.20	1.30	1.37	1.36	1.50	1.60
45	/	0.63	0.69	0.75	0.78	0.83	0.88	1.00	1.05	1.14	1.20	1.26	1.32	1.40

COP Correction_6/10														
Outflow Heated Water(°C)	Ambient Temp.(°C)													
	-25	-20	-15	-10	-7	-2	2	7	10	15	20	25	30	35
50	/	/	0.58	0.63	0.66	0.71	0.73	0.86	0.90	0.99	1.03	1.08	1.13	1.21
55	/	/	/	0.52	0.54	0.59	0.62	0.72	0.76	0.82	0.87	0.90	0.95	1.02
60	/	/	/	/	0.44	0.46	0.49	0.58	0.60	0.64	0.67	0.71	0.74	0.79

COP Correction_8														
Outflow Heated Water(°C)	Ambient Temp.(°C)													
	-25	-20	-15	-10	-7	-2	2	7	10	15	20	25	30	35
25	1.08	1.14	1.22	1.27	1.35	1.41	1.46	1.53	1.59	1.74	1.84	1.83	1.99	2.11
30	0.88	0.96	1.02	1.08	1.14	1.20	1.26	1.40	1.48	1.59	1.69	1.69	1.83	1.95
35	0.74	0.78	0.83	0.91	0.96	1.02	1.05	1.26	1.33	1.44	1.50	1.50	1.67	1.77
40	0.64	0.71	0.78	0.83	0.87	0.94	0.99	1.13	1.19	1.30	1.36	1.35	1.49	1.59
45	/	0.63	0.69	0.75	0.78	0.83	0.88	1.00	1.05	1.14	1.20	1.26	1.32	1.40
50	/	/	0.59	0.64	0.67	0.72	0.74	0.87	0.91	1.00	1.05	1.10	1.15	1.23
55	/	/	/	0.53	0.56	0.61	0.64	0.74	0.78	0.85	0.89	0.93	0.98	1.05
60	/	/	/	/	0.46	0.48	0.51	0.61	0.62	0.67	0.70	0.74	0.77	0.83