

MALACAÑANG

Manila

BY THE PRESIDENT OF THE PHILIPPINES

ADMINISTRATIVE ORDER NO. 110

DIRECTING THE INSTITUTIONALIZATION OF A GOVERNMENT ENERGY MANAGEMENT PROGRAM (GEMP)

WHEREAS, under Section 2 of R.A. No. 7638, otherwise known as the "Department of Energy Act of 1992", it is declared the policy of the State to ensure a continuous, adequate, reliable, and economic supply of energy through, among others, the judicious conservation, renewal and efficient utilization of energy, to keep pace with the country's growth and economic development;

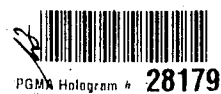
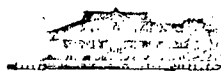
WHEREAS, it is imperative that long-term measures be adopted to minimize if not forestall any adverse effect of the crude price increases on the country's essential economic activities;

WHEREAS, to mitigate the ill effects of energy use on the environment, there is a compelling need for the Government to undertake a program promoting the judicious use of energy resources through intensified conservation efforts and efficient utilization thereof;

WHEREAS, the Government's five- (5) point energy reform agenda on energy independence aims to achieve sixty (60) percent self-sufficiency level by 2010 and thus shield the country from the price volatility of imported energy through the enhanced development and use of indigenous oil and gas reserves, renewable energy, alternative fuels, strategic alliances with other countries, and effective implementation of a National Energy Efficiency and Conservation Program (NEECP);

WHEREAS, to maintain the Government's credibility in encouraging the adoption of energy efficiency and conservation measures by the private sector, the Government shall lead by example implementing its own energy management program;

WHEREAS, Section 1 (b) (2) of the Administrative Order No. 103, requires the reduction of at least ten percent (10%) in the cost of the consumption of fuel, water, office supplies, electricity and other utilities. For this purpose, agencies are hereby authorized to install and use energy-efficient lights and fixtures, and optimize the utilization of internet facilities especially for long-distance communication.



NOW, THEREFORE, I, GLORIA MACAPAGAL-ARROYO, President of the Philippines, by virtue of the powers vested in me by law, do hereby order:

SECTION 1. THE GOVERNMENT ENERGY MANAGEMENT PROGRAM (GEMP)

1.1 GEMP Goal

The Government shall aim to reduce its monthly consumption of electricity (in kilowatt-hours) and petroleum products (in liters) by at least ten percent (10%) through the implementation of the GEMP for a minimum period of three (3) years starting January 2005.

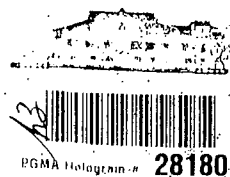
1.2 Methodology

a. Electricity Efficiency and Conservation

1. Each government entity is mandated to adopt and implement an electricity efficiency program to reduce electricity consumption by ten (10) percent of its average monthly consumption for the 1st semester of 2004.
2. The Government, thru the Department of Budget and Management (DBM) in coordination with the DOE, shall institute the government procurement guidelines on energy efficient lighting and appliances based on DOE-certified energy efficiency ratings (Attachment A).
3. Each government entity may utilize or avail itself of the Department of Energy (DOE) approved and other acceptable energy efficiency measures in order to effectively comply with this Administrative Order.

b. Efficiency and Conservation in Fuel Use of Government Vehicles

1. Each government entity is mandated to adopt and implement a program that will reduce its fuel consumption for transport by ten (10) percent of its average monthly consumption for the 1st semester of 2004.
2. The ten percent (10%) fuel reduction may be achieved thru substitution or blending of petroleum products with alternative fuels, such as Coco-Methyl Ester (CME) in accordance with the



provisions of MC No. 55, Compressed Natural Gas (CNG), Ethanol, and other biofuels, among others as certified by the DOE.

3. There shall be a moratorium on the purchase of new government vehicles for six (6) months after the effectivity of this Administrative Order, provided that once the moratorium has been lifted, purchase of new government vehicles shall be limited to engine displacements of no more than 1600cc and 2500cc for gasoline and diesel engines, respectively.
4. Government vehicles shall be used for official business purposes only.

1.3 **Compliance**

a. **Energy Surveys and Audits**

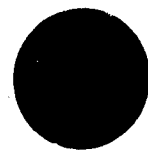
1. Each government entity shall conduct a prioritized survey by requiring walk-through audits in all its facilities. The DOE shall provide technical assistance to all government entities for this purpose.
2. Each government entity, upon establishing its priorities, shall conduct detailed energy audits either through the services of the DOE or an Energy Service Provider (ESP).

b. **Energy Conservation Officer**

1. Each government entity shall designate a senior official as its Energy Conservation Officer (ECO).
2. The ECO shall be responsible for his/her government entity's compliance with the provisions of this Administrative Order, as well as the development and implementation of energy efficiency and conservation measures.

c. **Implementing Guidelines, Rules and Regulations**

The DOE, with the concurrence of DBM, shall promulgate the necessary implementing guidelines, rules and regulations to ensure compliance with the provisions of this Administrative Order.



SEC. 2. INTER-AGENCY COORDINATION

The DOE shall establish an inter-agency coordination among all government entities to ensure compliance with this Administrative Order, including the conduct of appropriate information, education and communication campaign.

SEC. 3. FUNDING

3.1 *Source of Funds*

- a. Each government entity shall allocate appropriate amount from its approved-budget for the years 2004 and 2005 for the implementation of its prioritized and planned energy management program.
- b. Each government entity shall include in its budget preparation the necessary funds for its energy management program from 2006 onward.

3.2 *Use of Energy Savings*

At least 50% of the savings to be realized through the GEMP may be used by the government entity for the improvement of energy efficiency in its facilities subject to the guidelines to be promulgated by the DOE and DBM.

SEC. 4. EFFECTIVITY. This Administrative Order shall take effect immediately.

Done in the City of Manila, this 25th day of October, in the year of Our Lord, Two Thousand and Four.

By the President

Gloria Arroyo



Eduardo R. Ermita
EDUARDO R. ERMITA
Executive Secretary



LIST OF CERTIFIED SPLIT-TYPE ROOM AIR CONDITIONERS
as of JUNE CY 2004

	COMPANY/ BRAND NAME	MODEL NO.	RATED COOLING CAPACITY, kJ/h	POWER CONSUMP. WATT	E E R kJ/w-h
I. RAC's WITH COOLING CAPACITY BELOW 12,000 kJ/h					
A. Imported Models					
1	MIDEA	KF-32GW/Y (Indoor) KF-32GW/Y (Outdoor)	11,520	1,050	11.0
2	GE	KF-32G/Y (Indoor) KF-32W (Outdoor)	11,500	1,050	11.0
3	HITACHI	RAS-256B (Indoor) RAC-256B (Outdoor)	10,600	981	10.8
4	UNI-AIR	U-1001NSEW (Indoor) U-1001SEW (Outdoor)	10,550	1,100	9.5
5	DAIKIN	FT25GVALT6 (Indoor) R25GVALT6 (Outdoor)	10,470	1,030	10.2
6	MIDEA	KF-28G/Y (Indoor) KF-28W (Outdoor)	10,080	970	10.4
7	PANASONIC	CS-XC9CKQ (Indoor) CU-XC9CKQ (Outdoor)	9,940	890	11.2
8	SHARP	AH-AP09CF (Indoor) AU-A09BF (Outdoor)	9,600	890	10.8
9	PANASONIC	CU-C9CKQ (Indoor & Outdoor)	9,540	760	12.5
10	MARKES OF CANADA	MSW-90D (Indoor & Outdoor)	9,500	900	10.6
11	CHANGHONG	KF-26GW (Indoor & Outdoor)	9,500	920	10.3
12	UNION	UAS-2510/AC (In & Out)	9,500	930	10.2
13	FEDDERS	1FE1009N7F (Indoor) 1FC1009N7F (Outdoor)	9,495	920	10.3
14	KOPPEL	1KE1009N7G (Indoor) 1KC1009N7F (Outdoor)	9,495	920	10.3
15	GALANZ	KF-25GW (Indoor & Outdoor)	9,495	920	10.3
16	AKIRA	AC-S10CP (Indoor & Outdoor)	9,495	950	10.0
17	MIDEA	MSB-09CR (Indoor & Outdoor)	9,495	1,000	9.5
18	TOSHIBA	RAS-10UKP2L (Indoor) RAS-10UA2L (Outdoor)	9,397	800	11.7
19	DAIKIN	ANW23JVALT6 (Indoor) ARW23JVALT6 (Outdoor)	9,210	905	10.2
20	CARRIER	42PGA009 (Indoor) 38PGA009 (Outdoor)	9,093	830	11.0
21	GE	AJ0AC09GK0 (Outdoor) AJ1AC09GKQ (Indoor)	9,000	800	11.3
22	GREE	KF-25PF (Indoor & Outdoor)	9,000	900	10.0

	COMPANY/ BRAND NAME	MODEL NO.	RATED COOLING CAPACITY, kJ/h	POWER CONSUMP. WATT	E E R kJ/w-h
23	HOME MATE	KF-25GW/C (Indoor & Outdoor)	9,000	930	9.7
24	WIMPEX	KF-88 (Indoor & Outdoor)	9,000	970	9.3
25	SHINCO	KF-25GW/FLB (In & Out)	9,000	980	9.2
26	KOLIN	KIU-10A1 (Indoor) KOU-10B1 (Outdoor)	8,000	800	10.0
27	MIDEA	MSB-07CR (Indoor & Outdoor)	7,385	800	9.2

Note:

For Split Type RACs with cooling capacity below 12,000 kJ/h

Highest EER: 12.5

Lowest EER: 9.2

Below 12,000 kJ/h

Imported - 27 models

	COMPANY/ BRAND NAME	MODEL NO.	RATED COOLING CAPACITY, kJ/h	POWER CONSUMP. WATT	E E R kJ/w-h
II. RAC's WITH COOLING CAPACITY 12,000 kJ/h AND ABOVE					
A. Locally and Imported Manufactured Models					
1	KOLIN	KIU-11A1 (Indoor-A) KIU-20A1 (Indoor-B) KOU-35B2 (Outdoor)	28,500	3,131	9.1
2	KOLIN	KSA-30B1 (Indoor & Outdoor)	26,800	2,821	9.5
3	CARRIER	42AR-02432125 (Indoor) ASBCU240BA (Outdoor)	25,320	2,780	9.1
4	PANASONIC	CS/U-C24BKNG (Indoor) CU-C24BKNG (Outdoor)	25,310	2,580	9.8
5	PANASONIC	CS/U-C24CKQ (Indoor & Outdoor)	25,310	2,580	9.8
6	KOPPEL	IKU424P7A (Indoor) IKC424N7K (Outdoor)	24,625	2,623	9.3
7	SAMSUNG	AS24S6GBA (In & Out)	24,000	2,550	9.4
8	UNI-AIR	U-2240NSEW (Indoor) U-2240OSCW (Outdoor)	23,630	2,570	9.2
9	GE	AJ1AC24GKQ (Indoor) AJ0AC24GKQ (Outdoor)	23,500	2,220	10.6
10	GE	UAS-2510 (Indoor) Not Indicated	23,500	2,220	10.6
11	HITACHI	RAS-56BN (Indoor) RAC-56BN (Outdoor)	23,446	2,308	10.2
12	MIDEA	MSB-22CR (Indoor & Outdoor)	23,210	2,500	9.3
13	KOPPEL	1KE424N7C (Indoor) 1KC424N7G (Outdoor)	23,210	2,510	9.2
14	FEDDERS	IFE424N7D (Indoor) IFC424N7G (Outdoor)	23,210	2,510	9.2
15	KOLIN	KSA-25B1 (Indoor & Outdoor)	23,000	2,421	9.5

	COMPANY/ BRAND NAME	MODEL NO.	RATED COOLING CAPACITY, kJ/h	POWER CONSUMP. WATT	E E R kJ/w-h
16	HITACHI	RAS-456B (Indoor) RAC-456B (Outdoor)	20,000	2,100	9.5
17	PANASONIC	CS-C18CKQ (Indoor) CU-C18CKQ (Outdoor)	19,080	1,730	11.0
18	PANASONIC	CS/U-C18CKQ(Indoor & Outdoor)	19,080	1,730	11.0
19	PANASONIC	CS/U-PC18CKQ (Indoor & Outdoor)	19,080	1,980	9.6
20	AKIRA	AC-S19CP (Indoor & Outdoor)	18,991	1,950	9.7
21	UNI-AIR	U-1800NSEW (Indoor) U-1800SCW (Outdoor)	18,990	2,064	9.2
22	UNION	UAS-5010/AC (Indoor & Outdoor)	18,990	2,080	9.1
23	KOPPEL	IKU418P7A (Indoor) IKC418N7G (Outdoor)	18,990	2,109	9.0
24	MIDEA	MSB-18CR (Indoor & Outdoor)	18,990	2,100	9.0
25	MIDEA	KF-26G/T21Y (Indoor-A) KF-26G/T21Y (Indoor-B) KF-26X2W (Outdoor)	18,720	1,880	9.9
26	KOLIN	KIU-20A1 (Indoor) KOU-20B1 (Outdoor)	18,500	1,850	10.0
27	KOPPEL	IKE418N7C (Indoor) IKC418N7K (Outdoor)	18,460	2,070	8.9
28	FEDDERS	1FE418N7D (Indoor) 1FC418N7G (Outdoor)	18,460	2,070	8.9
29	HOME MATE	KF-516 (Indoor) KF-51W (Outdoor)	18,360	2,000	9.2
30	IMARFLEX	IAC-200S (Indoor & Outdoor)	18,360	2,080	8.8
31	SAMSUNG	AS18SOGBA (In & Out)	18,200	1,800	10.1
32	SAMSUNG	AS18SOGB (Indoor & Outdoor)	18,200	1,800	10.1
33	GOLDEN AIRE	KF-51LW (Indoor & Outdoor)	18,200	1,900	9.5
34	SHARP	AH-AP18CF (Indoor) AU-A18CF (Outdoor)	18,100	2,010	9.0
35	SHINCO	KF-50GW/FLB (In & Out)	18,000	2,070	8.7
36	GE	AJ1AC18GKQ(Indoor) AJ0AC18GK0(Outdoor)	17,500	1,620	10.8
37	GOLDEN AIRE	KF-46G/W (Indoor & Outdoor)	16,560	1,800	9.2
38	KOLIN	KSG-20B1 (Indoor) KSG-20B1 (Outdoor)	16,200	1,700	9.5
39	KOLIN	KIU-10A1 (Indoor-A) KIU-10A1 (Indoor-B)	16,000	1,600	10.0
40	GREE	KF-45PF (Indoor & Outdoor)	16,000	1,700	9.4
41	CARRIER	42PGA013 (Indoor) 38PGA013 (Outdoor)	13,357	1,245	10.7
42	TOSHIBA	RAS-13UKP2L (Indoor) RAS-13UA2L (Outdoor)	13,320	1,270	10.5
43	HITACHI	RAS-326B (Indoor) RAC-326B (Outdoor)	13,300	1,255	10.6
44	UNI-AIR	U-1260NSEW (Indoor) U-1260SCW (Outdoor)	13,290	1,290	10.3

	COMPANY/ BRAND NAME	MODEL NO.	RATED COOLING CAPACITY, kJ/h	POWER CONSUMP WATT	E E R kJ/w-h
45	SAMSUNG	AS12SGGB (Indoor) US12SGB (Outdoor)	13,200	1,200	11.0
46	SAMSUNG	AS12S4GBA (In & Out)	13,190	1,240	10.6
47	MITSUBISHI	SRK40CSP (Indoor & Outdoor)	12,960	1,260	10.3
48	PANASONIC	CS-XC12CKQ (Indoor) CU-XC12CKQ (Outdoor)	12,890	1,120	11.5
49	PANASONIC	CS/U-PC12CKQ (Indoor & Outdoor)	12,740	1,210	10.5
50	FEDDERS	1FE1012N7F (Indoor) 1FC1012N7F (Outdoor)	12,660	1,230	10.3
51	KOPPEL	1KE1012N7G (Indoor) 1KC1012N7F (Outdoor)	12,660	1,230	10.3
52	GOLDEN AIRE	KF-33GW/A (Indoor & Outdoor)	12,660	1,300	10.0
53	GALANZ	KF-35GW (Indoor & Outdoor)	12,660	1,260	10.0
54	MIDEA	MSB-12CR (Indoor & Outdoor)	12,660	1,330	9.5
55	CHANGHONG	KF-34GW (Indoor and Outdoor)	12,650	1,290	9.8
56	KOLIN	KSG-15B1 (Indoor) KSG-15B1 (Outdoor)	12,600	1,100	11.5
57	SHARP	AH-AP12CF (Indoor) AU-A12BF (Outdoor)	12,600	1,190	10.6
58	IMARFLEX	IAC-150S (Indoor & Outdoor)	12,600	1,240	10.2
59	SHINCO	KF-35GW/FLB (In & Out)	12,600	1,310	9.6
60	GOLDEN PORT	KF-35GW (Indoor & Outdoor)	12,590	1,250	10.1
61	DAIKIN	FT35GVALT6 (Indoor) R35GVALT6 (Outdoor)	12,560	1,230	10.2
62	AKIRA	AC-S13CP (Indoor & Outdoor)	12,200	1,220	10.0
63	AUX	KF-33GW (Indoor) KF-33HII (Outdoor)	12,100	1,300	9.3
64	GREE	KF-35PF (Indoor & Outdoor)	12,000	1,210	9.9

Note:

For Split Type RACs with cooling capacity 12,000 kJ/h and above **12,000 kJ/h and above**

Highest EER: 11.5

Local - 2 models Imported - 63 models

Lowest EER: 8.7

Total no. of models certified = 92

LIST OF CERTIFIED REFRIGERATORS AS OF JULY 2004

	BRAND	MODEL	TOTAL STORAGE VOLUME (liters)	ENERGY CONSUMPTION (kW-h/24h)	EEF
A. Locally Manufactured Models					
1	CONDURA	CPS-8SD	244	1.55	183
2	CONDURA	CR080SDM	244	1.55	183
3	CONDURA	CR080SDS	244	1.55	183
4	KELVINATOR	KPS-8SD	244	1.55	183
5	KELVINATOR	KR080SDM	244	1.55	183
6	KELVINATOR	KR080SDS	244	1.55	183
7	NATIONAL	NR-B2405PM	237	1.93	143
8	NATIONAL	NR-B2405PQ	237	1.93	143
9	PANASONIC	NR-B804E	228	1.39	197
10	SANYO	SR-907NTD	226	0.98	243
11	NATIONAL	NR-B803D	220	1.33	196
12	NATIONAL	NR-B803E	220	1.33	196
13	SINGER	REF 276	220	1.33	196
14	NATIONAL	NR-B801D	219	1.48	173
15	NATIONAL	NR-B801E	219	1.48	173
16	SINGER	REF 275	219	1.48	173
17	NATIONAL	NR-B2155PM	219	1.63	158
18	NATIONAL	NR-B2155PQ	219	1.63	158
19	SINGER	REF 274	219	1.63	158
20	CONDURA	CPS-7TD	216	1.81	147
21	CONDURA	CR070TDM	216	1.81	147
22	CONDURA	CR070TDS	216	1.81	147
23	KELVINATOR	KPS-7TD	216	1.81	147
24	KELVINATOR	KR070TDM	216	1.81	147
25	KELVINATOR	KR070TDS	216	1.81	147
26	CONDURA	CPS-7SD	214	1.47	167
27	KELVINATOR	KPS-7SD	214	1.47	167
28	CONDURA	CR070SDM	214	1.49	162
29	KELVINATOR	KR070SDM	214	1.49	162
30	NATIONAL	NR-A803E	213	0.86	260
31	PANASONIC	NR-A804E	212	0.92	243
32	SANYO	SR-280LTD	210	1.24	213
33	SANYO	SR-280ND	210	1.24	213
34	SANYO	SR-280NSS	210	1.24	213
35	SANYO	SR-280NTD	210	1.24	213
36	SANYO	SR-280NW	210	1.24	213
37	SANYO	SR-280NWS	210	1.24	213
38	SANYO	SR-280SVG	210	1.24	213

	BRAND	MODEL	TOTAL STORAGE VOLUME (liters)	ENERGY CONSUMPTION (kW-h/24h)	EEF
39	SANYO	SR-280NTW	210	1.50	166
40	PANASONIC	NR-B704D	202	1.42	164
41	PANASONIC	NR-B704E	202	1.42	164
42	NATIONAL	NR-A701D	200	0.86	246
43	SANYO	SR-807NA	198	0.97	215
44	SANYO	SR-807LTD	198	0.98	214
45	SANYO	SR-807ND	198	0.98	214
46	SANYO	SR-807NM	198	0.98	214
47	SANYO	SR-807NTD	198	0.98	214
48	SANYO	SR-807NTM	198	0.98	214
49	SUNACE	SAR-198M	198	0.98	214
50	NATIONAL	NR-B703D	198	1.30	175
51	NATIONAL	NR-B703E	198	1.30	175
52	NATIONAL	NR-B703E	198	1.30	175
53	NATIONAL	NR-B701D	198	1.35	169
54	NATIONAL	NR-B701E	198	1.35	169
55	NATIONAL	NR-B1905PM	198	1.67	140
56	NATIONAL	NR-B1905PQ	198	1.67	140
57	NATIONAL	BR-A2007PE	197	0.84	246
58	SINGER	REF 178	197	0.84	246
59	NATIONAL	NR-A702E	196	0.84	246
60	NATIONAL	NR-A703E	196	0.84	246
61	SINGER	REF 178A	196	0.84	246
62	SINGER	REF 179	196	0.84	246
63	PANASONIC	NR-A704D	196	0.95	227
64	NATIONAL	NR-A702D	196	0.94	226
65	NATIONAL	NR-A703D	196	0.94	226
66	PANASONIC	NR-A704E	196	0.95	215
67	SANYO	SR-27WX	193	2.27	99
68	CONDURA	CPS-6SD	187	1.03	191
69	CONDURA	CR060SDM	187	1.03	191
70	CONDURA	CR060SDS	187	1.03	191
71	KELVINATOR	KPS-6SD	187	1.03	191
72	KELVINATOR	KR060SDM	187	1.03	191
73	KELVINATOR	KR060SDS	187	1.03	191
74	CONDURA	CPS-6SD DLX	187	1.14	173
75	SANYO	SR-270NTD	184	1.31	172
76	SANYO	SR-S70EW	175	0.84	221
77	NATIONAL	NR-A601D	174	0.73	252
78	NATIONAL	NR-A1707PE	172	0.72	255
79	SINGER	REF 165	172	0.72	255
80	NATIONAL	NR-A602D	170	0.74	242
81	NATIONAL	NR-A602E	170	0.74	242
82	NATIONAL	NR-A603D	170	0.74	242
83	NATIONAL	NR-A603E	170	0.74	242
84	SINGER	REF 165A	170	0.74	242
85	SINGER	REF 166	170	0.74	242

	BRAND	MODEL	TOTAL STORAGE VOLUME (liters)	ENERGY CONSUMPTION (kW-h/24h)	EEF
86	PANASONIC	NR-A604D	170	0.80	227
87	SANYO	SR-707LTD	170	0.79	226
88	SANYO	SR-707ND	170	0.79	226
89	SANYO	SR-707NM	170	0.79	226
90	SANYO	SR-707NTD	170	0.79	226
91	SANYO	SR-707NTM	170	0.79	226
92	SUNACE	SAR-170M	170	0.79	226
93	SANYO	SR-707NA	170	0.87	204
94	PANASONIC	NR-A604E	170	0.87	203
95	SANYO	SR-S63EW	153	0.89	182
96	CONDURA	CPS-5SD	145	0.92	167
97	CONDURA	CR050SDM	145	0.92	167
98	KELVINATOR	KPS-5SD	145	0.92	167
99	KELVINATOR	KR050SDM	145	0.92	167
100	CONDURA	CR050SDS	145	1.00	154
101	KELVINATOR	KR050SDS	145	1.00	154
102	CONDURA	CPS-5SD DLX	145	1.12	137
103	SANYO	SR-507LTD	142	0.70	214
104	SANYO	SR-507ND	142	0.70	214
105	SANYO	SR-507NTD	142	0.70	214
106	SANYO	SR-507NTM	142	0.70	214
107	SANYO	SR-147NSF	142	0.75	200
108	SANYO	SR-507NM	142	0.75	200
109	SUNACE	SAR-142M	142	0.75	200
110	NATIONAL	NR-A501D	130	0.64	217
111	NATIONAL	NR-A1407PE	128	0.71	192
112	SINGER	REF 155	128	0.71	192
113	NATIONAL	NR-A502E	125	0.64	208
114	NATIONAL	NR-A503E	125	0.64	208
115	NATIONAL	NR-A502D	125	0.72	186
116	NATIONAL	NR-A503D	125	0.72	186

Note:

For REF under locally manufactured models

Highest EEF: 260

Lowest EEF: 137

B. Imported Models

1	SHARP	SJ-D25L	225	1.61	164
2	SHARP	SJ-D25P	225	1.61	164
3	SHARP	SJ-D23T	215	0.92	244
4	CHUNLAN	BCD-215	215	0.96	242
5	SHARP	SJ-22T	211	1.1	205
6	SAMSUNG	RT24MESS	207	2.24	109

	BRAND	MODEL	TOTAL STORAGE VOLUME (liters)	ENERGY CONSUMPTION (kW-h/24h)	EEF
7	SAMSUNG	RT24VESS	207	2.24	109
8	HAIER	BCD-216	204	1.14	236
9	LG	GR-242 MVF	200	2.20	114
10	CHUNLAN	BCD-195	195	0.95	233
11	LG	GN-241	190	0.79	256
12	ADMIRAL	BCD-193W	190	1.65	144
13	SHARP	SJ-D21P	190	1.68	138
14	SHARP	SJ-D2IL	190	1.68	138
15	MIDEA	BC-203WH	189	1.75	133
16	LG	GN-241D	188	0.85	235
17	LG	GN-241D	188	0.85	235
18	SAMSUNG	RT21MESS	187	2.38	93
19	SAMSUNG	RT21VESS	187	2.38	93
20	TOSHIBA	GR-P200	186	0.95	204
21	TOSHIBA	GR-P200D	186	0.95	204
22	GE	GAV7BAMR	186	0.80	191
23	WWH	WR-1999CD	186	1.06	182
24	WWH	WR-1999C	186	1.06	181
25	LG	GR-232D	186	1.90	118
26	LG	LR-231 GVF	185	0.90	218
27	LG	LR-231GL	185	0.95	218
28	LG	GR-231	185	0.89	218
29	SANYO	SR-270NTW	184	1.31	172
30	SHARP	SJ-19T	180	0.98	198
31	GE	GMV070BANR	177	2.18	93
32	WHIRLPOOL	WRD70K	175	0.85	215
33	SANYO	SR-S70FW	175	0.90	207
34	GE	GMV070BDNR	175	2.16	96
35	MIDEA	BC-193WH	174	1.67	129
36	LG	GR-212D	174	1.90	114
37	LG	GN-221	173	0.78	236
38	LG	GN-221D	171	0.78	234
39	SAMSUNG	SR-A19NFB	170	0.98	180
40	SAMSUNG	SR-A19NFE	170	0.98	180
41	SAMSUNG	SR-A19WFB	170	0.98	180
42	SAMSUNG	SR-A19WFE	170	0.98	180
43	KOLIN	KRD-170A	168	0.70	218
44	MIDEA	BC-183WH	168	1.92	106
45	UNION	URF-629	167	0.7	230
46	AKIRA	RD-202P	166	1.25	143
47	AKIRA	RS-201P	164	0.7	232
48	CHUNLAN	BCD-178	163	0.94	186
49	TOSHIBA	GR-P180	159	0.85	196
50	TOSHIBA	GR-P180D	159	0.85	196
51	WWH	WR-1899CD	159	0.90	186
52	WWH	WR-1899C	159	0.90	185

	BRAND	MODEL	TOTAL STORAGE VOLUME (liters)	ENERGY CONSUMPTION (kW-h/24h)	EEF
53	GE	GAV65BAMR	159	0.88	180
54	LG	LR-191GVF	155	0.80	205
55	LG	LR-191GL	155	0.80	205
56	LG	LR-191GVF	155	0.80	205
57	SANYO	SR-S63FW	155	0.83	199
58	SAMSUNG	SR-A17NFB	155	0.86	190
59	SAMSUNG	SR-A17NFE	155	0.98	190
60	LG	GR-191	155	0.88	187
61	WHIRLPOOL	WRD63K	155	0.91	178
62	SAMSUNG	SR-A17WFB	155	0.98	158
63	SAMSUNG	SR-A17WFE	155	0.98	158
64	LG	GN-171	150	0.56	285
65	GE	GAV060BAPR	145	0.80	192
66	HAIER	HR-170U	145	0.90	162
67	HAIER	HR-175UD	145	0.92	157
68	GE	GAV6BAMR	141	0.80	186
69	WWH	WR-1799C	141	0.88	168
70	TOSHIBA	GR-P165	141	0.93	160
71	TOSHIBA	GR-P165D	141	0.93	160
	For REF under imported models		Highest EEF: 285	Lowest EEF: 93	

**LIST OF CERTIFIED WINDOW-TYPE ROOM AIR CONDITIONERS
AS OF JUNE CY 2004**

	COMPANY/ BRAND NAME	MODEL NO.	RATED COOLING CAPACITY, kJ/h	POWER CONSUMPTION, Watt	E E R kJ/w-h
I. RAC's WITH COOLING CAPACITY BELOW 12,000 kJ/h					
A. Locally Manufactured and Imported Models					
1	HITACHI	RA-116MAS	11,600	1,074	10.8
2	HITACHI	RA-116WAS	11,600	1,074	10.8
3	MIDEA	KC-32/EIY	11,520	1,210	9.5
4	MIDEA	KC-32E1	11,520	1,210	9.5
5	ELEPHANT	KC32/F1	11,520	1,210	9.5
6	CARRIER	WCARMO11EA	11,250	1,004	11.2
7	CARRIER	MCA115BP	11,100	956	11.6
8	CARRIER	MCA115PP	11,100	956	11.6
9	CARRIER	MCA115RP	11,100	956	11.6
10	CONDURA	MCC115BP	11,100	956	11.6
11	CONDURA	MCC115PP	11,100	956	11.6
12	CONDURA	MCC115RP	11,100	956	11.6
13	KELVINATOR	MCK115BP	11,100	956	11.6
14	KELVINATOR	MCK115PP	11,100	956	11.6
15	KELVINATOR	MCK115RP	11,100	956	11.6
16	CONDURA	WCONTO11EA	11,100	991	11.2
17	PANASONIC	CW-SC101VPH	11,000	940	11.7
18	PANASONIC	CW-C101VPH	11,000	940	11.7
19	PANASONIC	CW-XC101VPH	11,000	940	10.3
20	LG	LWC1031DAG	10,609	1,030	10.3
21	LG	LWC1031QAG	10,609	1,030	10.3
22	LG	LWC1031QAS	10,609	1,030	10.3
23	KOLIN	KAG-11ME	10,600	960	11.0
24	KOLIN	KAG-11RE	10,600	960	11.0
25	LG	LWQ1030QAL	10,550	1,000	10.5
26	UNI-AIR	UF-100AS	10,550	1,030	10.2
27	UNI-AIR	UH-100MS	10,550	1,055	10.0
28	UNI-AIR	UH-100MC	10,550	1,055	10.0
29	UNI-AIR	U-1000MCF	10,550	1,011	10.0
30	AMERICAN HOME	AHAC-100MNT	10,550	1,050	10.0
31	KOMITSU	KAK-11M	10,550	1,050	10.0
32	KOLIN	KA-11BMW	10,500	1,050	10.0
33	YORK	YC-9DR	10,140	938	10.8
34	GE	AJE09KA	9,800	930	10.5

	COMPANY/ BRAND NAME	MODEL NO.	RATED COOLING CAPACITY, kJ/h	POWER CONSUMPTION, Watt	E E R kJ/w-h
35	CARRIER	WCARF010EA	9,750	928	10.5
36	SHARP	AF-A901S	9,747	855	11.4
37	SHARP	AF-A901ST	9,747	855	11.4
38	SHARP	AF-A950P	9,747	855	11.4
39	SHARP	AF-A950PR	9,747	855	11.4
40	YORK	YWU-09	9,603	967	9.9
41	GREE	KW-23AP	9,540	960	9.9
42	GREE	KW-23P	9,540	960	9.9
43	YORK	YC-9D	9,540	960	9.9
44	DAIKIN	W25MVBL	9,500	900	10.6
45	PANASONIC	CW-SC91JPH	9,500	900	10.6
46	CARRIER	FCA095BP	9,500	904	10.5
47	CARRIER	FCA095PP	9,500	904	10.5
48	CARRIER	FCA095RP	9,500	904	10.5
49	CONDURA	FCC095BP	9,500	904	10.5
50	CONDURA	FCC095PP	9,500	904	10.5
51	CONDURA	FCC095RP	9,500	904	10.5
52	CONDURA	WCONS010EA	9,500	904	10.5
53	KELVINATOR	FCK095BP	9,500	904	10.5
54	KELVINATOR	FCK095PP	9,500	904	10.5
55	KELVINATOR	FCK095RP	9,500	904	10.5
56	MARKES OF CANADA	MWA-90	9,500	920	10.3
57	SAMSUNG	AW-09F2TBA	9,500	980	9.7
58	LG	LWGO0930ACG	9,496	1,000	9.5
59	FEDDERS	2FY2009I7L	9,495	918	10.3
60	FEDDERS	1FY2009I7L	9,495	918	10.3
61	KOPPEL	2KY2009I7M	9,495	918	10.3
62	FEDDERS	2FY2009I7L-PH	9,495	918	10.3
63	KOPPEL	1KY2009I7M-PH	9,495	918	10.3
64	KOPPEL	1KY2009I7M	9,495	897	10.1
65	MIDEA	MWH-09CR	9,495	950	10.0
66	SANSIO	AW-900	9,495	960	9.9
67	TOYO	TA-09CW	9,495	960	9.9
68	WHIRLPOOL	AMB09WK4	9,495	1,040	9.1
69	GE	ASV09KA	9,400	1,000	9.4
70	FUJITSU	AKU9GNG-W	9,200	955	9.6
71	SANYO	SA-T93P	9,000	910	9.9
72	IMARFLEX	IAC-100	9,000	920	9.8
73	SAMSUNG	AW-09LFABA	9,000	960	9.4
74	MIDEA	KC-25E1	9,000	970	9.3
75	ELEPHANT	KC25/F1	9,000	970	9.3

	COMPANY/ BRAND NAME	MODEL NO.	RATED COOLING CAPACITY, kJ/h	POWER CONSUMPTION, Watt	E E R kJ/w-h
76	MIDEA	KC-25CI	9,000	980	9.2
77	DURASTAR	DRAC-010	9,000	1,000	9.0
78	MIDEA	MWH-09CM	8,970	920	9.8
79	CHANGHONG	KC 25/S	8,968	960	9.3
80	HITACHI	RA-86MAS	8,600	827	10.4
81	HITACHI	RA-86MAS	8,600	827	10.4
82	HITACHI	RA-86WAS	8,600	827	10.4
83	YORK	YWU-07	8,441	771	10.9
84	UNI-AIR	U-820MS	8,440	881	9.6
85	WIMPEX	KC-25/A	8,440	881	9.6
86	YORK	YC-7DR	8,339	731	11.4
87	CARRIER	WCARF008EA	8,250	705	11.7
88	SHARP	AF-A701S	8,208	720	11.4
89	SHARP	AF-A701ST	8,208	720	11.4
90	SHARP	AF-A750P	8,208	720	11.4
91	SHARP	AF-A750PR	8,206	746	11.0
92	LG	LWG0821DAG	8,140	740	11.0
93	KOMITSU	KAK-08M	8,018	815	9.8
94	CONDURA	WCONS008EA	8,000	683	11.7
95	KOLIN	KAG-08ME	8,000	760	10.5
96	KOLIN	KAG-08RE	8,000	760	10.5
97	MIDEA	MWH-07CR	7,910	790	10.0
98	GE	ASV07KA	7,875	750	10.5
99	AKIRA	AC-W10CP	7,848	753	10.4
100	CHANGHONG	KC 22/S	7,800	753	10.4
101	GREE	KC-19AP	7,600	750	10.1
102	UNI-AIR	UH-072MS	7,596	775	9.8
103	UNI-AIR	UH-072MC	7,596	775	9.8
104	GREE	KC-19	7,560	750	10.1
105	YORK	YC-7D	7,560	750	10.1
106	MIDEA	KC-21/CI	7,560	800	9.4
107	MARKES OF CANADA	MWA-75	7,500	720	10.4
108	SANYO	SA-T73P	7,500	750	10.0
109	EVER AIRE	EKC-20/A60	7,500	790	9.5
110	DAIKIN	W20MVBL	7,420	645	11.5
111	PANASONIC	CW-SC71JPH	7,420	645	11.5
112	PANASONIC	CW-C71JPH	7,420	645	11.5
113	PANASONIC	CW-XC71JPH	7,420	645	11.5
114	CARRIER	FCA075BP	7,400	643	11.5
115	CARRIER	FCA075PP	7,400	643	11.5

	COMPANY/ BRAND NAME	MODEL NO.	RATED COOLING CAPACITY, kJ/h	POWER CONSUMPTION, Watt	E E R kJ/w-h
116	CARRIER	FCA075RP	7,400	643	11.5
117	CONDURA	FCC075BP	7,400	643	11.5
118	CONDURA	FCC075PP	7,400	643	11.5
119	CONDURA	FCC075RP	7,400	643	11.5
120	KELVINATOR	FCK075BP	7,400	643	11.5
121	KELVINATOR	FCK075PP	7,400	643	11.5
122	KELVINATOR	FCK075RP	7,400	643	11.5
123	KOLIN	KA-08BMW	7,400	718	10.3
124	SAMSUNG	AW-07F2NBB	7,400	750	9.9
125	KOLIN	KA-08BMW	7,400	778	9.5
126	AKIRA	AC-W7CP	7,385	710	10.4
127	FEDDERS	1FY2007I7L	7,385	715	10.3
128	FEDDERS	2FY2007I7L	7,385	715	10.3
129	KOPPEL	2KY2007I7M	7,385	715	10.3
130	KOPPEL	1KY2007I7M	7,385	715	10.3
131	FEDDERS	2FY2007I7L-PH	7,385	715	10.3
132	KOPPEL	1KY2007I7M-PH	7,385	715	10.3
133	SANSIO	AW-700	7,385	770	9.6
134	SAMSUNG	AW-07LFABA	7,200	730	9.9
135	GE	AJE07KA	7,000	720	9.7
136	UNI-AIR	U-660MS	6,750	705	9.6
137	GREE	KC-15P	6,125	612	10.0
138	LG	LWH0621ACG	5,900	615	9.6
139	FEDDERS	2FYX06N7A	5,800	595	9.75
140	FEDDERS	1FYX06N7A	5,800	595	9.75
141	CARRIER	WCARF006EA	5,780	535	10.8
142	SAMSUNG	AW-05MOYBA	5,700	560	10.2
143	CONDURA	WCONS006EA	5,600	518	10.8
144	CARRIER	FCA055BP	5,500	534	10.3
145	CARRIER	FCA055PP	5,500	534	10.3
146	CARRIER	FCA055RP	5,500	534	10.3
147	CONDURA	FCC055BP	5,500	534	10.3
148	CONDURA	FCC055PP	5,500	534	10.3
149	CONDURA	FCC055RP	5,500	534	10.3
150	KELVINATOR	FCK055BP	5,500	534	10.3
151	KELVINATOR	FCK055PP	5,500	534	10.3
152	KELVINATOR	FCK055RP	5,500	534	10.3
153	PANASONIC	CW-SC51JPH	5,500	535	10.3
154	GE	AJV05KA	5,300	530	10.0
155	SAMSUNG	AW-05F05BB	5,300	530	10.0

	COMPANY/ BRAND NAME	MODEL NO.	RATED COOLING CAPACITY, kJ/h	POWER CONSUMPTION, Watt	E E R kJ/w-h
156	MIDEA	MWH-05CM	5,280	536	9.9
157	KOPPEL	4KYX05N7A	5,275	515	10.2
158	KOMITSU	KAK-06M	5,275	550	9.6
159	LG	LW-036	5,040	510	9.9

Note:

For Window type RACs with cooling capacity below 12,000 kJ/h

Highest EER: 11.7

Lowest EER: 9.0

Below 12,000 kJ/h

Local - 86 models Imported - 73 models

	COMPANY/ BRAND NAME	MODEL NO.	RATED COOLING CAPACITY, kJ/h	POWER CONSUMPTION, Watt	E E R kJ/w-h
II. RAC's WITH COOLING CAPACITY 12,000 kJ/h AND ABOVE					
A. Locally and Imported Manufactured Models					
1	HITACHI	RA-300WAS	31,800	3,500	9.0
2	PANASONIC	CW-SC241EPH	25,500	2,660	9.6
3	PANASONIC	CW-XC241EPH	25,500	2,660	9.6
4	HITACHI	RA-224MA	25,400	2,673	9.5
5	HITACHI	RA-254MA	25,400	2,673	9.5
6	LG	LWN2432UAG	25,320	2,820	9.0
7	KOLIN	KAG-28BMW	25,000	2,747	9.1
8	KOLIN	KAG-25RE	24,000	2,300	10.4
9	CARRIER	APXRE240BA	24,000	2,608	9.2
10	CARRIER	APXRM240BA	24,000	2,608	9.2
11	CARRIER	APXRT240BA	24,000	2,608	9.2
12	CARRIER	WCARP024EA	24,000	2,608	9.2
13	CONDURA	CQXRE240BA	24,000	2,608	9.2
14	CONDURA	CQXRM240BA	24,000	2,608	9.2
15	CONDURA	CQXRT240BA	24,000	2,608	9.2
16	YORK	YWU-22	23,212	2,469	9.4
17	MARKES OF CANADA	MWA-240	22,500	2,300	9.8

	COMPANY/ BRAND NAME	MODEL NO.	RATED COOLING CAPACITY, kJ/h	POWER CONSUMPTION, Watt	E E R kJ/w-h
18	YORK	YC-24D	21,600	2,350	9.2
19	YORK	YWU-18	20,718	2,127	9.7
20	DAIKIN	W50LVBL	19,900	1,890	10.5
21	PANASONIC	CW-SC181EPH	19,900	1,890	10.5
22	PANASONIC	CW-XC181EPH	19,900	1,890	10.5
23	CARRIER	APXRE195BA	19,600	1,866	10.5
24	CARRIER	APXRE195BC	19,600	1,866	10.5
25	CARRIER	APXRM195BA	19,600	1,866	10.5
26	CARRIER	APXRT195BA	19,600	1,866	10.5
27	CARRIER	WCARP019EA	19,600	1,866	10.5
28	CONDURA	CQXRE195BA	19,600	1,866	10.5
29	CONDURA	CQXRE195BC	19,600	1,866	10.5
30	CONDURA	CQXRM195BA	19,600	1,866	10.5
31	CONDURA	CQXRT195BA	19,600	1,866	10.5
32	HITACHI	RA-180MA	19,600	2,021	9.7
33	KOLIN	KA-21BMW	19,000	2,183	8.7
34	LG	LWM1836DAG	18,990	1,850	10.3
35	LG	LWM1836QAG	18,990	1,850	10.3
36	LG	LWM1836QAS	18,990	1,850	10.3
37	FEDDERS	1FY318N7A	18,990	1,870	10.2
38	FEDDERS	1FY318N7B	18,990	1,870	10.2
39	KOPPEL	1KY318N7G	18,990	1,870	10.2
40	GE	ASV18KA	18,990	1,900	10.0
41	UNI-AIR	UH-180MC	18,990	1,940	9.7
42	UNI-AIR	UH-180MS	18,990	1,940	9.7
43	LG	LWM1834DCG	18,600	1,860	10.0
44	LG	LWM1834QCG	18,000	1,860	10.0
45	MIDEA	KC-46CI	16,560	1,840	9.0
46	ELEPHANT	KC-46C1	16,560	1,840	9.0
47	MARKES OF CANADA	MWA-180	16,500	1,580	10.4
48	KOLIN	KAG-19ME	16,200	1,620	10.0
49	YORK	YC-18D	16,200	1,650	9.8
50	KOLIN	KAG-19RE	16,000	1,580	10.1
51	FEDDERS	1FY2015I7L	15,825	1,530	10.3
52	FEDDERS	2FY2015I7L	15,825	1,530	10.3
53	KOPPEL	2KY2015I7M	15,825	1,530	10.3
54	KOPPEL	1KY2015I7M	15,825	1,530	10.3
55	DURASTAR	DSAC-10Z	15,000	1,700	8.8
56	YORK	YC-12DR	14,026	1,287	10.9
57	HITACHI	RA-136MAS	13,600	1,260	10.0

	COMPANY/ BRAND NAME	MODEL NO.	RATED COOLING CAPACITY, kJ/h	POWER CONSUMPTION, Watt	E E R kJ/w-h
58	HITACHI	RA-136WAS	13,600	1,360	10.0
59	CARRIER	WCARM014EA	13,500	1,205	11.2
60	SHARP	AF-A1250P	13,331	1,307	10.2
61	SHARP	AF-A1250PR	13,331	1,307	10.2
62	PANASONIC	CW-XC121VPH	13,300	1,210	10.7
63	AKIRA	AC-W13CP	13,293	1,300	10.2
64	CARRIER	MCA135BP	13,200	1,147	11.5
65	CARRIER	MCA135PP	13,200	1,147	11.5
66	CARRIER	MCA135RP	13,200	1,147	11.5
67	CONDURA	MCC135BP	13,200	1,147	11.5
68	CONDURA	MCC135PP	13,200	1,147	11.5
69	CONDURA	MCC135RP	13,200	1,147	11.5
70	KELVINATOR	MCK135BP	13,200	1,147	11.5
71	KELVINATOR	MCK135PP	13,200	1,147	11.5
72	KELVINATOR	MCK135RP	13,200	1,147	11.5
73	CONDURA	WCONTO14EA	13,200	1,178	11.2
74	DURASTAR	DSAC-10Y	13,200	1,450	9.1
75	KOLIN	KAG-15ME	13,120	1,335	9.8
76	KOLIN	KA-15BMW	13,120	1,366	9.6
77	DAIKIN	W30MVBL	13,000	1,210	10.7
78	PANASONIC	CW-C121VPH	13,000	1,210	10.7
79	PANASONIC	CW-SC121VPH	13,000	1,210	10.7
80	MARKES OF CANADA	MWA-120	13,000	1,270	10.2
81	KOLIN	KAG-15RE	13,000	1,270	10.2
82	YORK	YWU-12	12,970	1,360	9.5
83	SAMSUNG	AW-12F2DBA	12,800	1,280	10.0
84	LG	LWC1232DAG	12,660	1,200	10.5
85	LG	LWC1232QAG	12,660	1,200	10.5
86	LG	LWC1232QAS	12,660	1,200	10.5
87	FEDDERS	1FY201217L	12,660	1,220	10.4
88	FEDDERS	2FY201217L	12,660	1,220	10.4
89	KOPPEL	2KY201217M	12,660	1,220	10.4
90	KOPPEL	1KY201217M	12,660	1,220	10.4
91	FEDDERS	2FY201217L-PH	12,660	1,220	10.4
92	KOPPEL	1KY201217M-PH	12,660	1,220	10.4
93	WHIRLPOOL	AMB12WK4	12,660	1,270	10.0
94	AMERICAN HOME	AHAC-120MNT	12,660	1,300	9.7
95	IMARFLEX	IAC-150WR	12,660	1,330	9.7
96	UNI-AIR	UF-120AS	12,660	1,319	9.6
97	STELLAR	KC-35/J160	12,660	1,320	9.6

	COMPANY/ BRAND NAME	MODEL NO.	RATED COOLING CAPACITY, kJ/h	POWER CONSUMPTION, Watt	E E R kJ/w-h
98	UNI-AIR	UH-120MC	12,660	1,347	9.4
99	UNI-AIR	UH-120MS	12,660	1,347	9.4
100	GREE	KC-35AP	12,600	1,400	9.0
101	YORK	YC-12D	12,600	1,400	9.0
102	SANYO	SA-T123P	12,300	1,370	9.0
103	SAMSUNG	AW-12LFABA	12,200	1,260	9.7
104	CHANGHONG	KC 35/S	12,133	1,380	8.8
105	GE	AJE12KA	12,000	1,200	10.0

Note:

For Window type RACs with cooling capacity 12,000 kJ/h and above

Highest EER: 11.5

Lowest EER: 8.7

12,000 kJ/h and above

Local - 62 models Imported - 43 models

Total no. of models certified - 264

LIST OF PNS*-COMPLIANT TUBULAR FLUORESCENT LAMP BALLASTS

As of October 15, 2004

Item No.	Brand Name	Ballast Model	Ballast Type	Nameplate rating	Ballast Loss, W**	Category Class
A. Wattage Category: 18 to 26 watts						
1	UNILUX	-	1 x 20	220, 60 hz.	8.0	B
2	HALLO	-	1 x 20	220, 60 hz.	8.0	B
3	KOPEZ	-	1 x 20	220, 60 hz.	8.5	C
4	SUPERLUX	L20	1 x 20	220, 60 hz., .37 A, pf=.35	8.6	C
5	SUAVE	L20.271	1 x 20	220, 60 hz., .37 A, pf=.35	8.7	C
6	POWERLUX	L20.168	1 x 20	220, 60 hz., .37 A, pf=.35	8.8	C
7	PINCO	-	1 x 20	230, 60 hz., .38 A	8.8	C
8	NIKO JAPAN	-	1 x 20	220, 60 hz., .37 A, pf=.35	8.8	C
9	TIGER	-	1 x 20	220, 60 hz., .37 A, pf=.35	9.1	C
10	LUXMAN	-	1 x 20	220, 60 hz.	9.2	C
11	STARLUX	SB 20 M	1 x 20	220, 60 hz.	9.3	C
12	GE	FPN 1123D	1 x 18/20/26	230, 60 hz., .37 A, pf=.32	9.3	C
13	MAXXI	-	1 x 20	220, 60 hz., .37 A, pf=.35	9.3	C
14	LANDLITE	-	1 x 20	220, 60 hz.	9.3	C
15	DELTA	18/20/26 333	1 x 18/20/26	230, 60 hz., .37 A, pf=.32	9.4	C
16	SUNLITE	-	1 x 20	220, 60 hz.	9.9	C
17	KOPEZ	-	1 x 20	220, 60 hz.	10.1	D
18	TOBO	-	1 x 20	220, 60 hz.	10.3	D
19	AMERICA	-	1 x 18/20	220, 60 hz., .37 A, NPF	10.4	D
B. Wattage Category: 36 to 40 watts						
1	PINCO	-	1 x 40	230, 60 hz., .43 A	7.1	B
2	HALLO	-	1 x 40	220, 60 hz.	8.0	B
3	SUNLITE	-	1 x 40	220, 60 hz.	8.4	C
4	UNILUX	-	1 x 40	220, 60 hz.	8.4	C
5	LANDLITE	-	1 x 40	220, 60 hz.	9.5	C
6	KOPEZ	-	1 x 40	220, 60 hz.	9.5	C
7	NIKO JAPAN	-	1 x 40	220, 60 hz., .43 A, pf =.53	9.7	C
8	SUPERLUX	L40	1 x 40	220, 60 hz., .43 A, pf=.55	9.8	C
9	POWERLUX	L40.168	1 x 40	220, 60 hz., .43 A, pf =.53	9.9	C
10	GE	FPN 1343D	1 x 36/40	230, 60 hz., .43 A, pf=.49	9.9	C
11	TIGER	-	1 x 40	220, 60 hz., .43 A, pf =.53	10.0	C
12	DELTA	36/40 338	1 x 36/40	230, 60 hz., .43 A, pf =.53	10.1	D
13	SUAVE	L40.272	1 x 40	220, 60 hz., .43 A, pf =.53	10.1	D
14	STARLUX	SB 40 M	1 x 40	220, 60 hz.	10.2	D
15	KOPEZ	-	1 x 40	220, 60 hz.	10.4	D
16	MAXXI	-	1 x 40	220, 60 hz., .43 A, pf =.53	10.6	D
17	LUXMAN	-	1 x 40	220, 60 hz.	10.7	D
18	TOBO	-	1 x 40	220, 60 hz.	11.4	D
19	AMERICA	-	1 x 36/40	220, 60 hz., .42 A, NPF	11.8	D

* Philippine National Standard

**Note: A fluorescent lamp ballast consumes lesser energy if it has a lower ballast loss.

LIST OF PNS-COMPLIANT COMPACT FLUORESCENT LAMPS (CFL)

As of October 15, 2004

Wattage Category	Brand Name	Model Name	Color Appearance	Lamp Specifications				
				Type of Lamp	Light Output, lumens	Wattage Rating, watts	Efficacy, lm/W	Average Life, hours
50W	OMNI	ESM-50W-DL	Daylight	Spiral	2750	50	55	7000
23W	HITACHI	EFH-23E	Daylight	3U	*	23	*	8000
	HITACHI	EFS-23E	Daylight	Spiral	*	23	*	8000
22W	G.E.	Electronic FLP	Daylight	Encap	1280	22	58	6000
20W	PHILIPS	Ecotone SLED	Daylight	Encap	1050	20	53	10000
	HITACHI	EFH-20E	Daylight	3U	*	20	*	8000
	HITACHI	EFS-20E	Daylight	Spiral	*	20	*	8000
	DELTA	Brite Saver	Daylight	3U	*	20	*	6000
	OSRAM	Dulux EE	Daylight	3U	1140	20	57	6000
	G.E.	Economizer	Daylight	3U	1050	20	52	4000
18W	G.E.	ECN-FLE 20W	Daylight	3U	1050	20	52	4000
	PHILIPS	Essential	Daylight	3U	1040	18	58	6000
	WORKSHOP		Daylight	3U	*	18	*	6000
	G.E.	Electronic FLP	Daylight	Encap	960	18	53	6000
15W	G.E.	Electronic FLP	Daylight	Encap	960	18	53	5000
	GARTIM	EB-15AP	Daylight	Spiral	800	15	53	10000
	PHILIPS	Ecotone SLED	Warm White	Encap	800	15	53	10000
	G.E.	FLE-HLX	Daylight	Spiral	840	15	56	6000
	G.E.	FLE-HLX 15W	Daylight	Spiral	840	15	56	6000
	G.E.	ECN-FLE 15W	Daylight	3U	830	15	55	4000
14W	G.E.	Economizer	Daylight	3U	830	15	55	4000
	PHILIPS	Genie	Warm White	3U	800	14	57	6000
	PHILIPS	Essential-Genie	Daylight	3U	760	14	54	6000
	PHILIPS	Essential	Daylight	2U	720	14	51	5000
13W	PHILIPS	Essential	Daylight	2U	760	14	54	5000
	LANDLITE	ELM 13W	Daylight	2U	760	13	58	5000
11W	HITACHI	EFD-11E	Daylight	2U	*	11	*	8000
	PHILIPS	Genie	Warm White	3U	600	11	55	6000
	GARTIM	EB-11AP	Daylight	2U	590	11	54	6000
	G.E.	FLE-HLX 11W	Daylight	Spiral	590	11	54	6000
	DELTA	Brite Saver	Daylight	2U	*	11	*	6000
	PHILIPS	Essential-Genie	Daylight	3U	570	11	52	6000
	PHILIPS	Ecotone PLEU	Daylight	2U	490	11	45	6000
	G.E.	Economizer	Daylight	2U	580	11	53	4000
	G.E.	ECN-FLE 11DBX	Daylight	2U	580	11	53	4000
G.E.	ECN-FLE 11W	Daylight	2U	580	11	53	4000	

PNS: Philippine National Standard

* Awaiting submission of claimed ratings by the manufacturer/importer.

Wattage Category	Brand Name	Model Name	Color Appearance	Lamp Specifications				
				Type of Lamp	Light Output, lumens	Wattage Rating, watts	Efficacy, lm/W	Average Life, hours
9W	HITACHI	EFD-9E	Daylight	2U	*	9	*	8000
	ARO	EUS-9W	Warm White	2U	500	9	55	6000
	ARO	EUS-9W	Daylight	2U	500	9	55	6000
	G.E.	Economizer	Daylight	2U	450	9	50	4000
	G.E.	ECN-FLE 9W	Daylight	2U	450	9	50	4000
	G.E.	ECN-FLE 9DBX	Daylight	2U	450	9	50	4000
8W	PHILIPS	Genie	Warm White	3U	420	8	53	6000
	OSRAM	EL Economy	Daylight	2U	400	8	50	6000
	PHILIPS	Essential-Genie	Daylight	3U	400	8	50	6000
	PHILIPS	Essential	Daylight	2U	380	8	48	6000
7W	GARTIM	EB-7AP	Daylight	2U	370	7	53	6000
	AKARI	-	Daylight	2U	350	7	50	6000
	LANDLITE	ELM 7W	Daylight	2U	350	7	50	5000
	FIREFLY Jr.	XEU23-7W	Daylight	2U	315	7	45	5000
6W	G.E.	ECN-FLE 6W	Daylight	2U	260	6	43	4000
5W	GARTIM	EB-5AP	Daylight	2U	250	5	50	6000
	PHILIPS	Genie	Warm White	2U	235	5	47	6000
	PHILIPS	Essential-Genie	Daylight	2U	220	5	44	6000
3W	GARTIM	EB-3AP	Daylight	2U	140	3	47	6000