

TABLE 10
HEAT GAIN FROM OCCUPANTS

APPLICATION	DEGREE OF ACTIVITY	SENSIBLE BTUH	LATENT BTUH
Assembly hall, Church or School or Auditorium, Theater/Matinee	Seated, at rest	210	140
Funeral Parlor	Seated, very light work	230	190
Bank	Standing, slow walk, light work	315	325
Barber shop	Seated, very light work	230	190
Beauty parlor	Seated, very light work	230	190
Bowling alley	Bowling or medium heavy work	635-1000	1165-2000
Conference room	Moderately active work	255	255
Cocktail lounge, bar, tavern	Standing, slow walk, light work	315	325
Department stores, retail shops:	Standing, slow walk, light work	315	325
Drug store	Light bench work	345	435
Pharmacist's work area	Standing, slow walk, light work	315	325
Sales area			
Dormitory	Seated, very light work	230	190
Factory	3 mph walk; moderate work	565	1035
Food services:			
Dining room	Seated, eating	255	325
Cafeteria, short order, drive-in	Seated, eating	255	325
Kitchen	Light bench work	345	435
Garage, (repair)	3 mph walk; moderate work	565	1035
Gymnasium			
Spectators	Seated, very light work	230	190
Participants	Bowling or medium heavy work	635-1000	1165-2000
Hospitals or nursing homes			
Rooms and wards	Seated, very light work	230	190
Operating room	Light bench work	345	435
Hotel or motel			
Bedroom or suite	Seated, very light work	230	190
Lobby	Standing, slow walk, light work	315	325
Conference room	Moderately active work	255	255
Ballroom	Moderate dancing	405	875
Laboratory	Light bench work	345	435
Library	Moderately active work	255	255
Locker rooms	Standing, slow walk, light work	315	325
Office			
Private or semi private	Seated, very light work	230	190
General	Moderately active work	255	255
Conference room	Moderately active work	255	255
Reception/lobby	Standing, slow walk, light work	315	325
Recreation facilities;			
Pool room	Light bench work	345	435
Racket ball or tennis courts	Sports or very heavy work	1000-2000	1150-3000
Swimming pools (spectators)	Seated, very light work	230	190

TABLE 10 (Continued)

APPLICATION	DEGREE OF ACTIVITY	SENSIBLE BTUH	LATENT BTUH
Restaurant or cafeteria			
Dining area	Seated, eating	225	325
Kitchen-	Light bench work	345	435
Restrooms, public	Seated, at rest	210	140
School rooms			
Classrooms	Seated, very light work	230	190
Laboratory	Standing, slow walk, light work	315	325
Shop	Light bench work	345	435

Notes:

- (1) Based on the normal percentage of men, women and children for the application listed.
- (2) Extracted from the 1985 ASHRAE Fundamentals.

TABLE 11
HEAT GAIN FROM ELECTRIC MOTORS
(Continuous Operation)-(Btuh)

MOTOR NAMEPLATE OR RATED HORSE POWER	MOTOR TYPE	FULL LOAD MOTOR EFFICIENCY IN PERCENT	LOCATION OF MOTOR AND DRIVEN EQUIPMENT WITH RESPECT TO CONDITIONED SPACE OR AIR STREAM		
			A	B	C
			Motor in, Driven Equipment in Btu/hr	Motor out, Driven Equipment in Btu/hr	Motor in, Driven Equipment out Btu/hr
0.05 (1/20)	Shaded Pole	35	360	130	240
0.08 (1/12)		35	580	200	380
0.125 (1/8)		35	900	320	590
0.16 (1/6)		35	1160	400	760
0.25 (1/4)	Split Phase	54	1180	640	540
0.33 (1/3)		56	1500	840	660
0.50 (1/2)		60	2120	1270	850
0.75 (3/4)	3 Phase	72	2650	1900	740
1		75	3390	2550	850
1.5		77	4960	3820	1140
2		79	6440	5090	1350
3		81	9430	7640	1790
5		82	15500	12700	2790
7.5		84	22700	19100	3640
10		85	29900	24500	4490
15		86	44400	38200	6210
20		87	58500	50900	7610
25		88	72300	63600	8680
30		89	85700	76350	9440
40		89	114000	102000	12600
50		89	143000	127000	15700
60		89	172000	153000	18900
75		90	212000	191000	21200
100		90	283000	255000	28300
125	90	353000	318000	35300	
150	91	420000	382000	37800	
200	91	559000	509000	50300	
250	91	699000	636000	629004	

Notes:

- (1) Normally motors do not operate at the name plate power or run continuously. Appropriate load and usage factors should be used with this table.

Example:

Name plate horse power = 2 HP at 7 amps
Measured amps = 5.4

Run time = 3.5 hours per eight hour shift

Pro-rated load = $6440 \times (3.5 / 8) \times (5.4 / 7)$

Motor load = 2174 Btuh