

**Table 3.1**

Parameters for stars of various spectral types. Columns give: spectral type; absolute visual magnitude,  $M_V$ ; color index,  $B - V$ ; bolometric correction, B.C.; bolometric magnitude,  $M_{\text{bol}}$ ; effective surface temperature,  $T_{\text{eff}}$ ; mass, radius, and luminosity in solar units; and average density in  $\text{g/cm}^3$ .

Sp	$M_V$	$B-V$	B.C.	$M_{\text{bol}}$	$T_{\text{eff}}$	$\log \frac{M}{M_{\odot}}$	$\log \frac{R}{R_{\odot}}$	$\log \frac{L}{L_{\odot}}$	$\log \bar{\rho}$
<i>Main sequence (V):</i>									
O5	-5.8	-0.35	-4.0	-10	40,000	1.6	1.25	5.7	-2.0
B0	-4.1	-0.31	-2.8	-6.8	28,000	1.25	0.87	4.3	-1.2
B5	-1.1	-0.16	-1.5	-2.6	15,500	0.81	0.58	2.9	-0.78
A0	0.7	0.0	-0.4	0.1	9,900	0.51	0.40	1.9	-0.55
A5	2.0	0.13	-0.12	1.7	8,500	0.32	0.24	1.3	-0.26
F0	2.6	0.27	-0.06	2.6	7,400	0.23	0.13	0.8	-0.01
F5	3.4	0.42	0.0	3.4	6,580	0.11	0.08	0.4	0.03
G0	4.4	0.58	-0.03	4.3	6,030	0.04	0.02	0.1	0.13
G5	5.1	0.70	-0.07	5.0	5,520	-0.03	-0.03	-0.1	0.20
K0	5.9	0.89	-0.19	5.8	4,900	-0.11	-0.07	-0.4	0.25
K5	7.3	1.18	-0.60	6.7	4,130	-0.16	-0.13	-0.8	0.38
M0	9.0	1.45	-1.19	7.8	3,480	-0.33	-0.20	-1.2	0.4
M5	11.8	1.63	-2.3	9.6	2,800	-0.67	-0.5	-2.1	1.0
M8	16	1.8			2,400	-1.0	-0.9	-3.1	1.8
<i>Giants (III):</i>									
G0	1.1	0.65	-0.03	1.1	5,600	0.4	0.8	1.5	-1.8
G5	0.7	0.85	-0.2	0.5	5,000	0.5	1.0	1.7	-2.4
K0	0.5	1.07	-0.5	0.2	4,500	0.6	1.2	1.9	-2.9
K5	-0.2	1.41	-0.9	-1.0	3,800	0.7	1.4	2.3	-3.4
M0	-0.4	1.60	-1.6	-1.8	3,200	0.8		2.6	-4.0
M5	-0.8	1.85	-2.8	-3				3.0	
<i>Supergiants (I):</i>									
B0	-6.4	-0.25	-3	-9	30,000	1.7	1.3	5.4	-2.1
A0	-6.2	0.0	-0.5	-7	12,000	1.2	1.6	4.3	-3.5
F0	-6	0.25	-0.1	-6	7,000	1.1	1.8	3.9	-4.2
G0	-6	0.70	-0.1	-5.2	5,700	1.0	2.0	3.8	-4.9
G5	-6	1.06	-0.3	-5.2	4,850	1.1	2.1	3.8	-5.2
K0	-5	1.39	-0.7	-5.4	4,100	1.1	2.3	3.9	-5.7
K5	-5	1.70	-1.2	-6	3,500	1.2	2.6	4.2	-6.4
M0	-5	1.94	-1.9	-7		1.2	2.7	4.5	-6.7
M5		2.14	-3.2						

SOURCE: Adapted from C. W. Allen, *Astrophysical Quantities*, 3rd ed. (London: The Athlone Press, 1973).