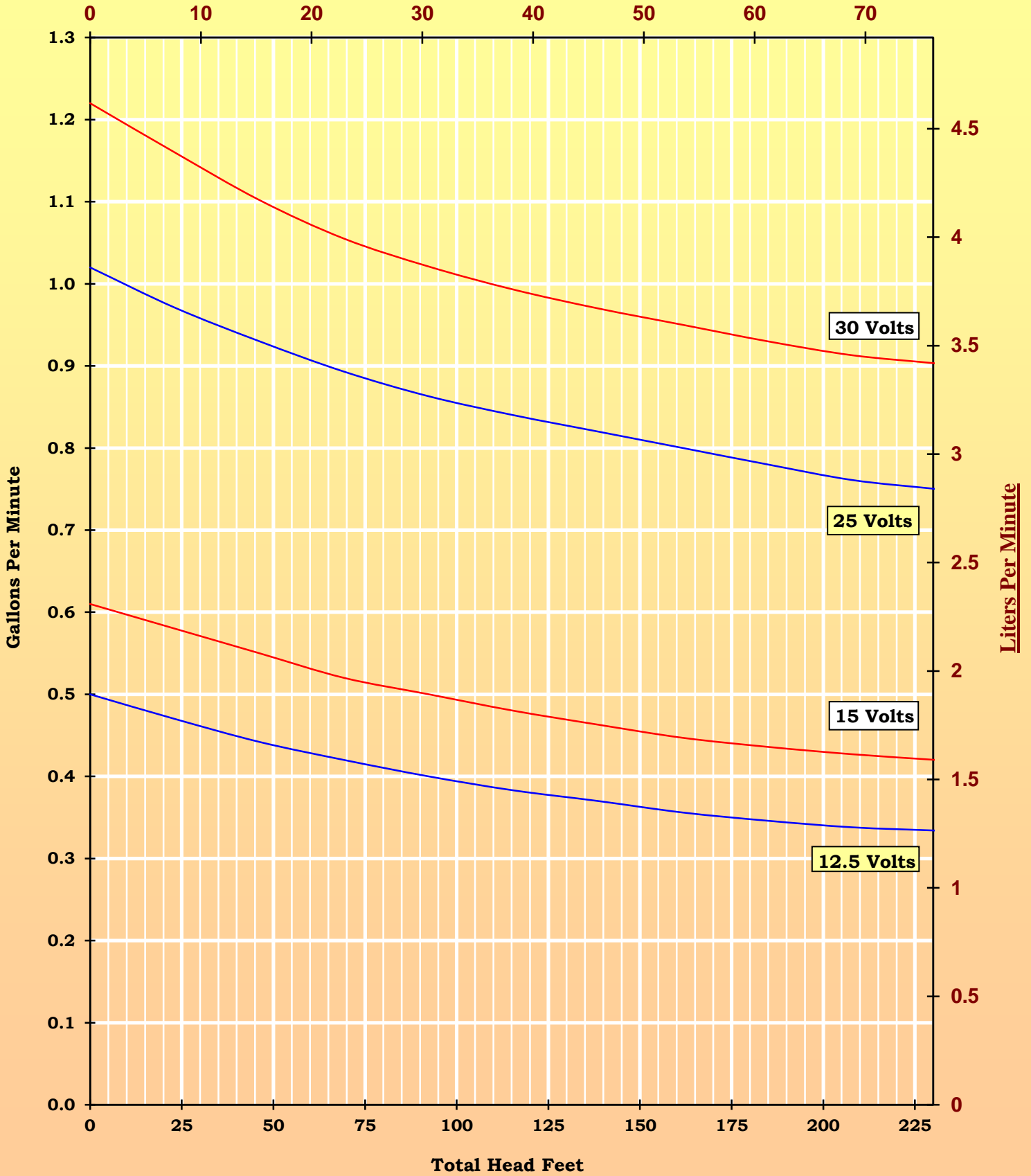


SunPumps SDS-D-228 Submersible Pump

Total Head Meters



SunPumps SDS-D Series Submersible

Model SDS-D-228

12 Volt Battery

| PSI | TDH Feet | TDH Meters | Motor Voltage | Motor Amps | U.S. GPM | LPM | Motor Watts | Peak Panel Watts* | System Efficiency |
|-----|----------|------------|---------------|------------|----------|-----|-------------|-------------------|-------------------|
| 0 | 0 | 0.0 | 12.5 | 0.9 | 0.50 | 1.9 | 11 | 14 | 0% |
| 10 | 23 | 7.0 | 12.5 | 1.0 | 0.47 | 1.8 | 13 | 16 | 16% |
| 20 | 46 | 14.1 | 12.5 | 1.2 | 0.44 | 1.7 | 15 | 19 | 26% |
| 30 | 69 | 21.1 | 12.5 | 1.3 | 0.42 | 1.6 | 16 | 20 | 33% |
| 40 | 92 | 28.2 | 12.5 | 1.5 | 0.40 | 1.5 | 18 | 23 | 38% |
| 50 | 116 | 35.2 | 12.5 | 1.6 | 0.38 | 1.4 | 20 | 25 | 41% |
| 60 | 139 | 42.3 | 12.5 | 1.7 | 0.37 | 1.4 | 22 | 27 | 45% |
| 70 | 162 | 49.3 | 12.5 | 1.9 | 0.36 | 1.3 | 24 | 29 | 46% |
| 80 | 185 | 56.3 | 12.5 | 2.0 | 0.35 | 1.3 | 25 | 32 | 47% |
| 90 | 208 | 63.4 | 12.5 | 2.2 | 0.34 | 1.3 | 27 | 34 | 48% |
| 100 | 231 | 70.4 | 12.5 | 2.3 | 0.33 | 1.3 | 29 | 36 | 50% |

17 Volt Panel Direct

| PSI | TDH Feet | TDH Meters | Motor Voltage | Motor Amps | U.S. GPM | LPM | Motor Watts | Peak Panel Watts* | System Efficiency |
|-----|----------|------------|---------------|------------|----------|-----|-------------|-------------------|-------------------|
| 0 | 0 | 0.0 | 15 | 0.9 | 0.61 | 2.3 | 14 | 17 | 0% |
| 10 | 23 | 7.0 | 15 | 1.1 | 0.58 | 2.2 | 16 | 20 | 16% |
| 20 | 46 | 14.1 | 15 | 1.3 | 0.55 | 2.1 | 19 | 23 | 26% |
| 30 | 69 | 21.1 | 15 | 1.4 | 0.52 | 2.0 | 21 | 26 | 33% |
| 40 | 92 | 28.2 | 15 | 1.5 | 0.50 | 1.9 | 23 | 29 | 38% |
| 50 | 116 | 35.2 | 15 | 1.7 | 0.48 | 1.8 | 25 | 31 | 42% |
| 60 | 139 | 42.3 | 15 | 1.8 | 0.46 | 1.8 | 27 | 34 | 45% |
| 70 | 162 | 49.3 | 15 | 2.0 | 0.45 | 1.7 | 29 | 37 | 46% |
| 80 | 185 | 56.3 | 15 | 2.1 | 0.44 | 1.7 | 31 | 39 | 48% |
| 90 | 208 | 63.4 | 15 | 2.2 | 0.43 | 1.6 | 33 | 42 | 50% |
| 100 | 231 | 70.4 | 15 | 2.4 | 0.42 | 1.6 | 35 | 44 | 52% |

24 Volt Battery

| PSI | TDH Feet | TDH Meters | Motor Voltage | Motor Amps | U.S. GPM | LPM | Motor Watts | Peak Panel Watts* | System Efficiency |
|-----|----------|------------|---------------|------------|----------|-----|-------------|-------------------|-------------------|
| 0 | 0 | 0.0 | 25 | 1.1 | 1.02 | 3.9 | 28 | 35 | 0% |
| 10 | 23 | 7.0 | 25 | 1.3 | 0.97 | 3.7 | 32 | 39 | 13% |
| 20 | 46 | 14.1 | 25 | 1.4 | 0.93 | 3.5 | 36 | 44 | 23% |
| 30 | 69 | 21.1 | 25 | 1.6 | 0.89 | 3.4 | 39 | 48 | 30% |
| 40 | 92 | 28.2 | 25 | 1.7 | 0.86 | 3.3 | 42 | 53 | 36% |
| 50 | 116 | 35.2 | 25 | 1.8 | 0.84 | 3.2 | 46 | 57 | 40% |
| 60 | 139 | 42.3 | 25 | 2.0 | 0.82 | 3.1 | 50 | 62 | 43% |
| 70 | 162 | 49.3 | 25 | 2.1 | 0.80 | 3.0 | 53 | 66 | 46% |
| 80 | 185 | 56.3 | 25 | 2.3 | 0.78 | 3.0 | 57 | 71 | 48% |
| 90 | 208 | 63.4 | 25 | 2.4 | 0.76 | 2.9 | 60 | 75 | 50% |
| 100 | 231 | 70.4 | 25 | 2.5 | 0.75 | 2.8 | 64 | 79 | 51% |

34 Volt Panel Direct

| PSI | TDH Feet | TDH Meters | Motor Voltage | Motor Amps | U.S. GPM | LPM | Motor Watts | Peak Panel Watts* | System Efficiency |
|-----|----------|------------|---------------|------------|----------|-----|-------------|-------------------|-------------------|
| 0 | 0 | 0.0 | 30 | 1.2 | 1.22 | 4.6 | 36 | 45 | 0% |
| 10 | 23 | 7.0 | 30 | 1.4 | 1.16 | 4.4 | 41 | 51 | 12% |
| 20 | 46 | 14.1 | 30 | 1.5 | 1.10 | 4.2 | 45 | 56 | 21% |
| 30 | 69 | 21.1 | 30 | 1.6 | 1.06 | 4.0 | 49 | 61 | 28% |
| 40 | 92 | 28.2 | 30 | 1.8 | 1.02 | 3.9 | 53 | 66 | 33% |
| 50 | 116 | 35.2 | 30 | 1.9 | 0.99 | 3.8 | 58 | 72 | 37% |
| 60 | 139 | 42.3 | 30 | 2.1 | 0.97 | 3.7 | 62 | 78 | 41% |
| 70 | 162 | 49.3 | 30 | 2.2 | 0.95 | 3.6 | 67 | 83 | 43% |
| 80 | 185 | 56.3 | 30 | 2.4 | 0.93 | 3.5 | 71 | 89 | 46% |
| 90 | 208 | 63.4 | 30 | 2.5 | 0.91 | 3.5 | 75 | 94 | 47% |
| 100 | 231 | 70.4 | 30 | 2.6 | 0.90 | 3.4 | 79 | 99 | 50% |

* Using a 20% deration factor.