FIRE-LITE ALARMS by Honeywell

# MS-9050UD Battery Calculation

Reviewed for Code Compliance
Inspections Division
Approved with Conditions
Date: 12/22/17

## Secondary Power Source Requirements

| | Standby Current (amps) | | | | | Secondary Alarm Current (amps) | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| **Device** | **Qty** | | **Current Draw** | | **Total** | **Qty** | | **Current Draw** | | **Total** |
| Main Circuit Board | 1 | x | 0.120000 | = | 0.120000 | 1 | x | 0.200000 | = | 0.200000 |
| 4XTMF | 0 | x | 0.005000 | = | | 0 | x | 0.011000 | = | |
| EOLR-1 | 0 | x | 0.020000 | = | | 0 | x | 0.020000 | = | |
| IPDACT-2 | 0 | x | 0.093000 | = | | 0 | x | 0.136000 | = | |
| IPDACT-2UD | 0 | x | 0.098000 | = | | 0 | x | 0.155000 | = | |
| **ANN-BUS Devices** | | | | | | | | | | |
| ANN-SEC Card | 0 | x | 0.003000 | = | | 0 | x | 0.003000 | = | |
| ANN-80(-W) | 1 | x | 0.015000 | = | 0.015000 | 1 | x | 0.040000 | = | 0.040000 |
| ANN-(R)LED | 0 | x | 0.028000 | = | | 0 | x | 0.068000 | = | |
| ANN-RLY | 0 | x | 0.015000 | = | | 0 | x | 0.075000 | = | |
| ANN-I/O | 0 | x | 0.035000 | = | | 0 | x | 0.200000 | = | |
| ANN-I/O LED | 0 | x | 0.000000 | = | | 0 | x | 0.010000 | = | |
| ANN-S/PG | 0 | x | 0.045000 | = | | 0 | x | 0.045000 | = | |
| ANN-LC | 0 | x | 0.150000 | = | | 0 | x | 0.150000 | = | |
| **Addressable Devices** | | | | | | | | | | |
| BEAM355 | 0 | x | 0.002000 | = | | | | | | |
| BEAM355S | 0 | x | 0.002000 | = | | | | | | |
| BEAM1224 | 0 | x | 0.017000 | = | | | | | | |
| CP355 | 0 | x | 0.000300 | = | | | | | | |
| SD355 | 1 | x | 0.000300 | = | 0.000300 | | | | | |
| SD355T | 0 | x | 0.000300 | = | | | | | | |
| AD355 | 0 | x | 0.000300 | = | | | | | | |
| H355 | 0 | x | 0.000300 | = | | | | | | |
| H355R | 0 | x | 0.000300 | = | | | | | | |
| H355HT | 0 | x | 0.000300 | = | | | | | | |
| D350P | 0 | x | 0.000300 | = | | | | | | |
| D350RP | 0 | x | 0.000300 | = | | | | | | |
| D350PL | 0 | x | 0.000300 | = | | | | | | |
| D350RPL | 0 | x | 0.000300 | = | | | | | | |
| D355PL | 0 | x | 0.000300 | = | | | | | | |
| MMF-300 | 2 | x | 0.000400 | = | 0.000800 | | | | | |
| MMF-300-10 | 0 | x | 0.003500 | = | | | | | | |
| MDF-300 | 0 | x | 0.000750 | = | | | | | | |
| MMF-301 | 0 | x | 0.000375 | = | | | | | | |
| MMF-302 | 0 | x | 0.000270 | = | | | | | | |
| MMF-302-6 | 0 | x | 0.002000 | = | | | | | | |
| BG-12LX | 3 | x | 0.000230 | = | 0.000690 | | | | | |
| CMF-300 | 0 | x | 0.000390 | = | | | | | | |
| CMF-300-6 | 0 | x | 0.002250 | = | | | | | | |
| CRF-300 | 0 | x | 0.000270 | = | | | | | | |
| CRF-300-6 | 0 | x | 0.001450 | = | | | | | | |
| CDRM-300 | 0 | x | 0.001300 | = | | | | | | |
| I300 | 0 | x | 0.000400 | = | | | | | | |
| ISO-6 | 0 | x | 0.002700 | = | | | | | | |
| B501BH-2 | 0 | x | 0.001000 | = | | | | | | |
| B501BHT-2 | 0 | x | 0.001000 | = | | | | | | |

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| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| B224RB | 0 | x | 0.000500 | = | | | | | | |
| B224BI | 0 | x | 0.000450 | = | | | | | | |
| Maximum alarm draw for all Addressable devices ----------> | | | | | | | | | | 0.400 |
| **Resettable Power** | | | | | | | | | | |
| 4-Wire Smoke Detectors | 0 | x | 0.000000 | = | | 0 | x | 0.000000 | = | |
| **Auxiliary Power** | | | | | | | | | | |
| CMF-300 (Aux. Power) | 0 | x | 0.001700 | = | | 0 | x | 0.007000 | = | |
| CMF-300-6 (Aux. Power) | 0 | x | 0.008000 | = | | 0 | x | 0.020000 | = | |
| MMF-302 (Aux. Power) | 0 | x | 0.012000 | = | | 0 | x | 0.090000 | = | |
| MMF-302-6 (Aux. Power) | 0 | x | 0.050000 | = | | 0 | x | 0.270000 | = | |
| B200SR (Aux. Power) | 0 | x | 0.000500 | = | | 0 | x | 0.035000 | = | |
| B200SR-LF (Aux. Power) | 0 | x | 0.001000 | = | | 0 | x | 0.125000 | = | |
| **Miscellaneous Devices** | | | | | | | | | | |
| | 0 | x | 0.200000 | = | | 0 | x | 0.000000 | = | |
| | 0 | x | 0.000000 | = | | 0 | x | 0.000000 | = | |
| | 0 | x | 0.000000 | = | | 0 | x | 0.000000 | = | |
| | 0 | x | 0.000000 | = | | 0 | x | 0.000000 | = | |
| | 0 | x | 0.000000 | = | | 0 | x | 0.000000 | = | |
| **Output Circuits** | | | | | | | | | | |
| NAC/Output #1 | | | 0.000000 | = | | | | 0.484000 | = | 0.484000 |
| NAC/Output #2 | | | 0.000000 | = | | | | 0.812000 | = | 0.812000 |
| **Total Standby Load** | | | | | **0.136790** | **Total Alarm Load** | | | | **1.936000** |

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## MS-9050UD Battery Calculation

**Calculation in Total Sheet**

| | | | | | |
|---|---|---|---|---|---|
| | | **Required Standby Time in Hours** | | | |
| | | 24 Hours | | | |
| **Total Standby Current** | **0.1368 Amps** | x | 24 | = | 3.283 AH |
| | | **Required Alarm Time in Minutes** | | | |
| | | 5 Minutes | | | |
| **Total Alarm Load** | **1.9360 Amps** | x | 0.084 | = | 0.163 AH |
| | | | **Total Current Load** | | **3.446 AH** |
| | Multiply by the Derating Factor | | 1.2 | = | x 1.20 |
| | | | **Total Ampere Hours Required** | | **4.13 AH** |