



UNDERWRITER'S LABORATORIES LISTED WIRE COMBINATIONS

The combinations listed are Cu-Cu Only. (Do Not use on Al-Al connections.)
 The combinations listed are solid and/or stranded wire unless otherwise noted.

| IDEAL Wire-Nut® Wire Connectors | | | |
|---------------------------------|--|---|---|
| Model | 300 Volt Maximum | | 600 Volt Maximum |
| 59B® | | | 1 #12 1 #12 w/1 to 3 #18 1 #12 w/1 or 2 #16 1 #12 w/1 #14 1 to 3 #14 1 #14 w/1 to 5 #18, #20 or #22 1 #14 w/1 to 3 #16 1 #14 w/1 #20 w/1 or 2 #22 1 #14 w/1 #18 w/1 or 2 #22 1 #14 w/1 #16 w/1 #20 or #22 2 #14 w/1 to 4 #20 or #22 2 #14 w/1 or 2 #18 2 #14 w/1 #16 2 #14 w/1 #20 w/1 or 2 #22 2 #14 w/1 #18 w/1 or 2 #22 2 #14 w/1 #16 w/1 #20 or #22 1 #16 or #18 Str. 2 to 4 #16 1 #16 w/1 to 5 #18, #20 or #22 1 #16 w/1 #20 w/1 or 2 #22 1 #16 w/1 #18 w/1 or 2 #22 2 #16 w/1 to 4 #18, #20 or #22 2 #16 w/1 #20 w/1 or 2 #22 2 #16 w/1 #18 w/1 or 2 #22 |
| | | | 3 #16 w/1 to 3 #20 or #22 3 #16 w/1 #20 w/1 or 2 #22 3 #16 w/1 #18 w/1 or 2 #22 3 #16 w/1 or 2 #18 4 #16 w/1 or 2 #22 4 #16 w/1 #18 or #20 4 #16 w/1 #20 w/1 #22 2 to 6 #18 3 #18 w/1 to 3 #20 or #22 3 #18 w/1 #20 w/1 or 2 #22 4 #18 w/1 or 2 #22 or #20 4 #18 w/1 #20 5 #18 w/1 #20 w/1 #22 1 #18 w/1 to 4 #20 or #22 1 #18 w/1 #20 w/1 or 2 #22 2 #18 w/1 to 4 #20 or #22 2 #18 w/1 #20 w/1 or 2 #22 2 to 6 #20 1 #20 w/2 to 5 #22 2 #20 w/1 to 4 #22 3 #20 w/1 to 3 #22 4 #20 w/1 or 2 #22 5 #20 w/1 #22 4 to 6 #22 |
| Model | 300 Volt Maximum | | 600 Volt Maximum |
| 71B® | 1 #14 1 #14 w/1 #20 or #22 1 or 2 #16 1 #16 w/1 #18 1 #16 w/1 or 2 #20 1 #16 w/1 to 3 #22 1 #16 w/1 #20 w/1 #18 or #20 1 #18 Str. 1 #18 w/1 to 3 #20 1 #18 w/1 to 4 #22 1 or 2 #18 w/1 #20 w/1 #22 | 2 or 3 #18 2 #18 w/1 #20 2 #18 w/1 or 2 #22 1 #20 w/1 to 4 #22 2 to 4 #20 2 #20 w/1 to 3 #22 3 #20 w/1 or 2 #22 4 #20 w/1 #22 2 #22 Str. 3 or 4 #22 5 #22 Sol. | |
| Model | 300 Volt Maximum | | 600 Volt Maximum |
| 72B® | 1 #14 Str. 1 #14 w/1 #16 1 #14 w/1 or 2 #18 1 #14 w/1 to 3 #20 1 #14 w/1 to 4 #22 1 #16 Str. 1 #16 w/1 to 3 #18 1 #16 w/1 #18 w/1 #20 1 #16 w/1 to 4 #20 or #22 1 #16 w/1 #22 w/1 #18 or #20 2 or 3 #16 2 #16 w/1 #18 2 #16 w/1 or 2 #20 2 #16 w/1 to 3 #22 | 2 #16 w/1 #20 w/1 #22 1 #18 Str. 1 #18 w/1 to 4 #20 or #22 1 or 2 #18 w/1 #20 w/1 #22 1 #18 Str. w/1 #20 Str. 2 #18 w/1 to 3 #20 or #22 2 to 4 #18 3 #18 w/1 or 2 #20 or #22 3 to 5 #20 4 #18 w/1 #20 or #22 3 #20 w/1 or 2 #22 4 #20 w/1 #22 2 #22 | |
| Model | 300 Volt Maximum | | 600 Volt Maximum |
| 73B® | 1 #14 w/2 #16 1 #14 w/1 #16 w/1 #18 1 #14 w/3 #18 1 #14 w/4 #20 2 #14 w/1 #18 2 #14 w/1 to 3 #20 or #22 3 or 4 #16 1 #16 w/4 #18 2 #16 w/2 or 3 #18 2 #16 w/3 #20 3 #16 w/1 #18 3 #16 w/1 or 2 #20 or #22 4 #16 w/1 #20 or #22 | 5 #18 1 #18 w/1 #20 4 #18 w/1 #20 or #22 3 #18 w/2 #20 or #22 2 #18 w/3 #22 1 #18 Str. w/5 #22 Str. 3 to 5 #20 4 #20 w/1 #22 3 #20 w/1 or 2 #22 2 #20 w/2 or 3 #22 1 #20 w/4 #22 5 #22 | 1 or 2 #14 1 #14 w/1 or 2 #18 1 #14 w/1 to 3 #20 1 #14 w/1 to 3 #22 1 #14 w/1 #16 w/1 #18 1 #14 w/1 #16 1 #16 Str. 1 #16 w/1 or 2 #18 1 #16 w/1 to 3 #20 or #22 2 #16 w/1 or 2 #20 2 #16 w/1 to 3 #22 2 #16 w/1 #18 1 or 2 #16 w/1 #20 w/1 #22 |



UNDERWRITER'S LABORATORIES LISTED WIRE COMBINATIONS

UL File No. E5238

The combinations listed are Cu-Cu Only. (Do Not use on Al-Al connections.)
 The combinations listed are solid and/or stranded wire unless otherwise noted.

| IDEAL Wire-Nut® Wire Connectors | | | | | |
|---------------------------------|--|--|--|--|---|
| Model | 300 Volt Maximum | | 600 Volt Maximum | | |
| 74B® | 1 #10 w/2 #12 | | 1 #8 1 #10 1 to 3 #12 1 to 4 #14 2 to 5 #16 3 to 6 #20 1 #10 w/1 #12 1 #10 w/1 or 2 #14, #16 or #18 1 #10 w/3 or 4 #16 or #18 1 #12 w/1 to 3 #14, #16 or #18 1 #12 w/4 #16 or #18 2 #12 w/1 or 2 #14 2 #12 w/1 or 2 #16 or #18 1 #14 w/1 to 4 #16, #18 or #20 2 #14 w/1 to 3 #16, #18 or #20 3 #14 w/1 or 2 #16 3 #14 w/1 or 2 #18 or #20 4 #14 w/1 #16 or #18 1 #16 w/1 to 4 #18, #20 or #22 2 #16 w/1 to 3 #18, #20 or #22 3 #16 w/1 or 2 #18, #20 or #22 4 #16 w/1 or 2 #18, #20 or #22 1 #18 w/3 or 4 #20 or #22 2 #18 w/3 #20 or #22 | 1 #10 w/1 #12 w/1 #14 or #16 1 #10 w/1 #12 w/1 or 2 #18 1 #10 w/1 #14 w/2 #16 1 #10 w/1 #14 w/1 to 3 #18 1 #10 w/2 #14 w/1 #16 1 #10 w/1 #16 w/1 or 2 #18 1 #12 w/1 #14 w/3 #16 1 #12 w/2 #14 w/2 #16 2 #12 w/1 #14 w/1 #16 or #18 2 #12 w/1 #16 w/1 or 2 #18 1 #14 w/1 #16 w/1 to 3 #20 1 #14 w/1 #18 w/1 to 3 #20 2 #14 w/1 #16 w/1 or 2 #18 or #20 3 #14 w/1 #16 w/1 #18, #20 or #22 3 #14 w/1 #18 w/1 #20 or #22 1 #16 w/1 #18 w/2 or 3 #20 or #22 1 #16 w/1 #18 w/3 or 4 #22 1 #16 w/2 #20 w/2 #22 2 #16 w/1 #18 w/1 or 2 #20 or #22 3 #16 w/1 #18 w/1 #20 or #22 1 #18 w/2 #20 w/3 #22 2 #18 w/1 #20 w/3 #22 2 to 5 #18 | |
| | 1 #6 w/1 or 2 #16 1 #6 w/1 #14 1 #6 w/1 #12 1 #6 w/1 #14 w/1 to 4 #22 1 #6 w/1 #14 w/1 or 2 #18 1 #6 w/1 #14 w/1 #16 2 #8 Str. 1 #8 w/4 #16 1 #8 w/3 #14 1 #8 w/2 #12 1 #8 w/1 #10 1 #8 w/1 #14 w/4 #18 1 #8 w/1 #14 w/3 or 4 #16 1 #8 w/1 #12 w/1 to 4 #16 or #18 1 #8 w/1 #12 w/1 or 2 #14 1 #8 w/2 #12 w/1 or 2 #18 1 #8 w/2 #12 w/1 #14 or #16 1 #8 w/1 #10 w/1 #12 or #14 3 #10 1 #10 w/4 #14 1 #10 w/3 #12 1 #10 w/2 #14 w/3 #16 1 #10 w/1 #12 w/4 #16 | | 1 #10 w/1 #12 w/3 or 4 #14 1 #10 w/2 #12 w/2 or 3 #16 or #18 1 #10 w/2 #12 w/1 or 2 #14 2 #10 w/3 #16 2 #10 w/2 or 3 #14 2 #10 w/1 or 2 #12 2 #10 w/1 #16 w/2 or 3 #18 2 #10 w/1 #14 w/2 or 3 #20 or #22 2 #10 w/1 #14 w/1 to 3 #18 2 #10 w/2 #14 w/1 #16 2 #10 w/1 #12 w/1 to 3 #18 2 #10 w/1 #12 w/1 or 2 #16 3 #10 w/1 #16 or #18 5 #12 2 #12 w/1 #14 w/3 #16 2 #12 w/2 #14 w/2 #16 3 #12 w/2 #14 3 #12 w/3 #16 3 #12 w/1 #16 w/2 #18 3 #12 w/1 #14 w/1 or 2 #16 3 #12 w/1 #14 w/1 or 2 #18 3 #12 w/2 #14 w/1 #16 4 #12 w/1 #14, #16, #18, #20 or #22 | 1 #6 or #8 1 #8 w/1 to 3 #16 1 #8 w/1 or 2 #14 1 #8 w/1 #12 1 #8 w/1 #14 w/1 to 4 #20 1 #8 w/1 to 4 #18, #20 or #22 1 #8 w/1 #14 w/1 or 2 #16 1 #8 w/1 #12 w/1 #16 or #18 1 or 2 #10 1 #10 w/1 to 4 #16 or #18 1 #10 w/1 to 4 #20 or #22 1 #10 w/5 #16 1 #10 w/1 to 3 #14 1 #10 w/1 or 2 #12 1 #10 w/1 or 2 #20 w/1 to 3 #22 1 #10 w/1 #18 w/1 to 4 #20 or #22 1 #10 w/1 #16 w/1 to 4 #20 or #22 1 #10 w/1 #16 w/1 to 4 #18 1 #10 w/1 #14 w/1 to 4 #20 or #22 1 #10 w/1 #14 w/1 to 4 #18 or #16 1 #10 w/2 #14 w/1 or 2 #16 1 #10 w/1 #12 w/1 to 4 #18 1 #10 w/1 #12 w/1 to 3 #16 1 #10 w/1 #12 w/1 or 2 #14 1 #10 w/2 #12 w/1 #16 or #18 2 #10 w/1 to 3 #18 2 #10 w/2 #16 2 #10 w/1 #14 2 #10 w/1 #16 w/1 #18 2 #10 w/1 #14 w/1 #20 or #22 1 to 4 #12 3 #12 w/1 #18 w/1 or 2 #22 3 #12 w/1 #18 w/1 or 2 #20 3 #12 w/1 #16 w/1 or 2 #22 3 #12 w/1 #16 w/1 or 2 #20 2 #12 w/2 #14 w/1 #16 1 #14 w/3 or 4 #18 1 #14 w/2 #20 w/3 #22 1 #14 w/1 #18 w/4 #22 1 #14 w/1 #18 w/3 or 4 #20 1 #14 w/1 #16 w/2 to 4 #20 1 or 2 #14 w/1 #16 w/1 to 3 #18 2 #14 w/2 to 4 #16 2 #14 w/1 or 2 #20 w/1 or 2 #22 2 #14 w/1 #18 w/1 to 3 #20 or #22 2 #14 w/1 #16 w/1 to 3 #20 or #22 3 #14 w/1 or 2 #20 or #22 3 #14 w/1 or 2 #16 or #18 3 #14 w/1 #18 w/1 or 2 #20 or #22 3 #14 w/1 #16 w/1 or 2 #20 or #22 2 #12 w/1 to 3 #14 4 or 5 #16 w/1 #22 | |
| | 76B® | 1 #6 w/1 or 2 #16 1 #6 w/1 #14 1 #6 w/1 #12 1 #6 w/1 #14 w/1 to 4 #22 1 #6 w/1 #14 w/1 or 2 #18 1 #6 w/1 #14 w/1 #16 2 #8 Str. 1 #8 w/4 #16 1 #8 w/3 #14 1 #8 w/2 #12 1 #8 w/1 #10 1 #8 w/1 #14 w/4 #18 1 #8 w/1 #14 w/3 or 4 #16 1 #8 w/1 #12 w/1 to 4 #16 or #18 1 #8 w/1 #12 w/1 or 2 #14 1 #8 w/2 #12 w/1 or 2 #18 1 #8 w/2 #12 w/1 #14 or #16 1 #8 w/1 #10 w/1 #12 or #14 3 #10 1 #10 w/4 #14 1 #10 w/3 #12 1 #10 w/2 #14 w/3 #16 1 #10 w/1 #12 w/4 #16 | | 1 #10 w/1 #12 w/3 or 4 #14 1 #10 w/2 #12 w/2 or 3 #16 or #18 1 #10 w/2 #12 w/1 or 2 #14 2 #10 w/3 #16 2 #10 w/2 or 3 #14 2 #10 w/1 or 2 #12 2 #10 w/1 #16 w/2 or 3 #18 2 #10 w/1 #14 w/2 or 3 #20 or #22 2 #10 w/1 #14 w/1 to 3 #18 2 #10 w/2 #14 w/1 #16 2 #10 w/1 #12 w/1 to 3 #18 2 #10 w/1 #12 w/1 or 2 #16 3 #10 w/1 #16 or #18 5 #12 2 #12 w/1 #14 w/3 #16 2 #12 w/2 #14 w/2 #16 3 #12 w/2 #14 3 #12 w/3 #16 3 #12 w/1 #16 w/2 #18 3 #12 w/1 #14 w/1 or 2 #16 3 #12 w/1 #14 w/1 or 2 #18 3 #12 w/2 #14 w/1 #16 4 #12 w/1 #14, #16, #18, #20 or #22 | 1 #12 w/3 or 4 #22 1 #12 w/2 to 4 #18 or #20 1 #12 w/1 to 4 #14 or #16 1 #12 w/1 #20 w/2 to 4 #22 2 #12 w/1 #14 w/1 to 3 #20 or #22 1 #12 w/2 #20 w/1 to 3 #22 1 #12 w/1 #18 w/1 to 4 #20 or #22 1 #12 w/1 #16 w/1 to 4 #20 or #22 1 #12 w/1 #16 w/1 to 4 #18 1 #12 w/1 #14 w/1 to 4 #16 or #18 1 #12 w/1 #14 w/1 to 4 #20 or #22 1 #12 w/2 #14 w/1 to 3 #16 2 #12 w/1 to 3 #20 or #22 2 #12 w/1 or 2 #16 or #18 2 #12 w/1 or 2 #20 w/1 or 2 #22 2 #12 w/1 #18 w/1 to 3 #20 or #22 2 #12 w/1 #16 w/1 to 3 #20 or #22 2 #12 w/1 #16 w/1 to 3 #18 2 to 5 #14 4 to 6 #16 2 #12 w/1 #14 w/1 to 3 #18 2 #12 w/1 #14 w/1 to 3 #16 3 #12 w/1 #16 w/1 or 2 #18 3 #12 w/1 #14 w/1 #20 3 #12 w/1 #14 w/1 or 2 #22 3 #12 w/1 #14 w/1 #18 3 #12 w/1 or 2 #20 or #22 3 #12 w/1 to 3 #18 3 #12 w/1 or 2 #16 3 #12 w/1 #20 w/1 or 2 #22 3 #12 w/2 #20 w/1 #22 3 #14 w/1 #16 w/1 or 2 #18 4 #14 w/1 #18, #20 or #22 4 #14 w/2 #18 4 #14 w/1 #16 5 #14 w/1 #18 1 #16 w/4 #18 2 #16 w/3 #20 2 #16 w/3 or 4 #18 2 #16 w/1 #20 w/3 #22 2 #16 w/2 #20 w/2 #22 2 #16 w/1 #18 w/3 #22 2 #16 w/1 #18 w/2 or 3 #20 3 #16 w/1 or 2 #18, #20 or #22 3 #16 w/1 or 2 #20 w/1 #22 3 #16 w/1 #18 w/1 or 2 #20 3 #16 w/1 #18 w/1 or 2 #22 4 #16 w/1 or 2 #22 4 #16 w/1 #18 or #20 4 or 5 #16 w/1 #22 |



UNDERWRITER'S LABORATORIES LISTED WIRE COMBINATIONS

The combinations listed are Cu-Cu Only. (Do Not use on Al-Al connections.)
 The combinations listed are solid and/or stranded wire unless otherwise noted.

| IDEAL Term-A-Nut® Pigtail Connectors and Grounding Connectors (Red shell w/Black wire, Red shell w/White wire & Green shell w/Green wire) | | | | | |
|---|----------------------------|----------------------------|----------------------------|----------------------------|----------------------------|
| Model | 600 Volt Maximum | | | | |
| 70 | 2 to 4 #12 | 4 #16 w/1 #18 | 3 #14 w/1 #16 | 2 #12 w/1 or 2 #16 | |
| | 2 to 4 #14 | 1 #14 w/2 or 3 #18 | 1 #12 w/2 or 3 #18 | 3 #12 w/1 #16 | |
| | 4 to 5 #16 | 2 #14 w/1 or 2 #18 | 2 #12 w/1 or 2 #18 | 1 #12 w/1 to 3 #14 | |
| | 1 #16 w/3 or 4 #18 | 3 #14 w/1 #18 | 3 #12 w/1 #18 | 2 #12 w/1 or 2 #14 | |
| | 2 #16 w/2 or 3 #18 | 1 #14 w/2 or 3 #16 | 1 #12 w/1 to 3 #16 | 3 #12 w/1 #14 | |
| | 3 #16 w/1 or 2 #18 | 2 #14 w/1 or 2 #16 | | | |
| IDEAL Greenie® Grounding Connector | | | | | |
| Model | 600 Volt Maximum | | | | |
| 92 | 1 #10 w/1 or 2 #12 | 1 #12 w/1 to 3 #14 | 3 #12 w/1 #14 | 2 to 4 #14 | |
| | 1 #10 w/1 to 3 #14 | 2 to 4 #12 | 2 #12 w/1 to 3 #14 | | |
| IDEAL Wing-Nut® Wire Connectors | | | | | |
| Model | 600 Volt Maximum | | | | |
| 451® | 1 #10 | 1 #12 w/1 to 3 #16 | 2 #12 w/1 #16 | 3 #14 w/1 #16 | |
| | 1 #10 w/1 #12 | 1 #12 w/1 or 2 #14 | 2 #12 w/1 #14 | 3 #16 w/1 to 3 #18 | |
| | 1 #10 w/1 or 2 #14 | 3 #14 w/1 or 2 #18 | 1 to 3 #14 | 4 #16 w/1 or 2 #18 | |
| | 1 #10 w/1 or 2 #16 | 2 to 4 #16 | 1 #14 w/1 to 5 #18 | 2 to 4 #18 | |
| | 1 #10 w/1 to 3 #18 | 1 #16 w/1 to 5 #18 | 1 #14 w/1 to 4 #16 | | |
| | 1 to 3 #12 | 2 #16 w/1 to 4 #18 | 2 #14 w/1 to 3 #18 | | |
| | 1 #12 w/1 to 5 #18 | 2 #12 w/1 or 2 #18 | 2 #14 w/1 to 3 #16 | | |
| | | | | | |
| Model | 600 Volt Maximum | | | | |
| 452® & 344® Twister PRO® | 1 #6 | 2 #10 w/1 to 4 #16 | 3 #12 w/1 #14 w/1 #16 | 2 #16 w/1 #18 w/1 to 3 #20 | |
| | 1 or 2 #8 | 2 #10 w/1 to 3 #14 | 4 #12 w/1 or 2 #16 | 2 #16 w/1 to 4 #22 | |
| | 1 to 4 #10 | 2 #10 w/1 to 3 #12 | 4 #12 w/1 #14 | 2 #16 w/1 to 4 #20 | |
| | 1 to 5 #12 | 2 #10 w/1 #16 w/1 to 3 #18 | 4 #12 w/1 #16 w/1 #18 | 2 #16 w/1 to 4 #18 | |
| | 1 to 6 #14 | 2 #10 w/2 #14 w/1 or 2 #16 | 4 #12 w/1 #14 w/1 #18 | 3 #16 w/1 to 3 #22 | |
| | 1 to 6 #16 | 2 #10 w/1 #12 w/1 to 3 #16 | 4 #12 w/1 #14 w/1 #16 | 3 #16 w/1 to 3 #20 | |
| | 2 to 6 #18 | 2 #10 w/1 #12 w/1 or 2 #14 | 1 #14 w/1 to 5 #22 | 3 #16 w/1 to 3 #18 | |
| | 3 to 6 #20 | 2 #10 w/2 #12 w/1 or 2 #18 | 1 #14 w/1 to 5 #20 | 3 #16 w/1 or 2 #22 w/1 #20 | |
| | 4 to 6 #22 | 2 #10 w/2 #12 w/1 or 2 #16 | 1 #14 w/1 to 5 #18 | 3 #16 w/1 #18 w/1 or 2 #22 | |
| | 1 #6 w/1 or 2 #12 | 2 #10 w/2 #12 w/1 #14 | 1 #14 w/1 to 5 #16 | 3 #16 w/1 #18 w/1 or 2 #20 | |
| | 1 #6 w/1 #10 | 3 #10 w/1 to 3 #18 | 1 #14 w/1 #16 w/1 to 3 #18 | 4 #16 w/1 or 2 #22 | |
| | 1 #6 w/2 #14 w/1 or 2 #16 | 3 #10 w/1 to 3 #16 | 2 #14 w/1 #16 w/1 to 3 #18 | 4 #16 w/1 or 2 #20 | |
| | 1 #6 w/1 #12 w/1 or 2 #14 | 3 #10 w/1 or 2 #14 | 2 #14 w/1 to 4 #22 | 4 #16 w/1 or 2 #18 | |
| | 1 #6 w/2 #12 w/1 #18 | 3 #10 w/1 #12 | 2 #14 w/1 to 4 #20 | 4 #16 w/1 #22 w/1 #20 | |
| | 1 #6 w/1 #10 w/1 #14 | 3 #10 w/1 #16 w/1 or 2 #18 | 2 #14 w/1 to 4 #18 | 4 #16 w/1 #18 w/1 #22 | |
| | 1 #8 w/1 to 5 #16 | 3 #10 w/1 #14 w/1 or 2 #18 | 2 #14 w/1 to 4 #16 | 4 #16 w/1 #18 w/1 #20 | |
| | 1 #8 w/1 to 4 #14 | 3 #10 w/1 #14 w/1 #16 | 3 #14 w/1 to 3 #22 | 5 #16 w/1 #22 | |
| | 1 #8 w/1 to 3 #12 | 3 #10 w/1 #12 w/1 #18 | 3 #14 w/1 to 3 #20 | 5 #16 w/1 #20 | |
| | 1 #8 w/2 #12 w/1 or 2 #14 | 3 #10 w/1 #12 w/1 #16 | 3 #14 w/1 to 3 #18 | 5 #16 w/1 #18 | |
| | 1 #8 w/1 or 2 #10 | 1 #12 w/1 to 5 #18 | 3 #14 w/1 to 3 #16 | 1 #18 w/1 to 5 #22 | |
| | 1 #8 w/1 #10 w/1 or 2 #14 | 1 #12 w/1 to 5 #16 | 3 #14 w/1 #16 w/1 or 2 #18 | 1 #18 w/1 to 5 #20 | |
| | 1 #8 w/1 #10 w/1 or 2 #12 | 1 #12 w/1 to 5 #14 | 4 #14 w/1 or 2 #22 | 1 #20 w/1 #22 w/1 to 3 #18 | |
| | 1 #8 w/2 #10 w/1 #14 | 1 #12 w/1 #16 w/1 to 3 #18 | 4 #14 w/1 or 2 #20 | 1 #20 w/2 #22 w/1 to 3 #18 | |
| | 1 #10 w/1 to 5 #18 | 2 #12 w/1 #16 w/1 to 3 #18 | 4 #14 w/1 or 2 #18 | 2 #20 w/1 #22 w/1 to 3 #18 | |
| | 1 #10 w/1 to 5 #16 | 1 #12 w/1 #14 w/1 to 3 #18 | 4 #14 w/1 or 2 #20 | 2 #18 w/1 to 4 #22 | |
| | 1 #10 w/1 to 5 #14 | 1 #12 w/1 #14 w/1 to 3 #16 | 4 #14 w/1 or 2 #18 | 2 #18 w/1 to 4 #20 | |
| | 1 #10 w/1 or 4 #12 | 2 #12 w/1 #14 w/1 to 3 #16 | 4 #14 w/1 or 2 #16 | 3 #18 w/1 to 3 #22 | |
| | 1 #10 w/1 #16 w/1 to 4 #18 | 2 #12 w/1 #14 w/1 to 3 #18 | 4 #14 w/1 #16 w/1 #18 | 3 #18 w/1 to 3 #20 | |
| | 1 #10 w/1 #14 w/1 to 4 #16 | 1 #12 w/2 #14 w/1 or 2 #16 | 5 #14 w/1 #16 w/1 #18 | 4 #18 w/1 or 2 #22 | |
| | 1 #10 w/1 #14 w/1 to 4 #18 | 2 #12 w/2 #14 w/1 or 2 #16 | 1 #16 w/1 to 5 #22 | 4 #18 w/1 or 2 #20 | |
| | 1 #10 w/2 #14 w/1 to 3 #16 | 2 #12 w/1 to 4 #18 | 1 #16 w/1 to 5 #20 | 5 #18 w/1 #22 | |
| | 1 #10 w/1 #12 w/1 to 4 #14 | 2 #12 w/1 to 4 #16 | 1 #16 w/1 to 5 #18 | 5 #18 w/1 #20 | |
| | 1 #10 w/1 #12 w/1 to 4 #16 | 2 #12 w/1 to 4 #14 | 1 #16 w/1 #20 w/1 or 2 #22 | 1 #20 w/2 to 5 #22 | |
| | 1 #10 w/1 #12 w/1 to 4 #18 | 3 #12 w/1 to 3 #18 | 1 #16 w/2 #20 w/1 or 2 #22 | 2 #20 w/1 to 4 #22 | |
| | 1 #10 w/2 #12 w/1 to 3 #16 | 3 #12 w/1 to 3 #16 | 2 #16 w/1 #20 w/1 or 2 #22 | 3 #20 w/1 to 3 #22 | |
| | 1 #10 w/2 #12 w/1 to 3 #18 | 3 #12 w/1 to 3 #14 | 2 #16 w/2 #20 w/1 or 2 #22 | 4 #20 w/1 or 2 #22 | |
| | 1 #10 w/2 #12 w/1 or 2 #14 | 3 #12 w/1 #16 w/1 or 2 #18 | 1 #16 w/1 #18 w/1 to 3 #22 | 4 #20 w/1 or 2 #20 | |
| | 1 #10 w/3 #12 w/1 #14 | 3 #12 w/1 #14 w/1 or 2 #18 | 1 #16 w/1 #18 w/1 to 3 #20 | | |
| | 2 #10 w/1 to 4 #18 | 3 #12 w/1 #14 w/1 or 2 #16 | 2 #16 w/1 #18 w/1 to 3 #22 | | |
| | Model | 600 Volt Maximum | | | |
| | 454® | 1 or 2 #6 | 1 #6 w/1 or 2 #8 | 2 #8 w/1 or 2 #10 | 2 #8 w/1 #10 w/1 or 2 #12 |
| | | 2 or 3 #8 | 2 #6 w/1 #14 | 3 #8 w/1 or 2 #14 | 2 #8 w/2 #10 w/1 #14 Sol. |
| | | 1 #8 w/1 to 5 #14 | 2 #6 w/1 #12 | 1 #8 w/1 #12 w/1 to 4 #14 | 1 #10 w/1 #12 w/1 to 4 #14 |
| | | 1 #8 w/1 to 5 #12 | 1 #6 w/1 #12 w/1 to 4 #14 | 1 #8 w/2 #12 w/1 to 3 #14 | 1 #10 w/2 #12 w/1 to 3 #14 |
| | | 1 #8 w/1 to 4 #10 | 1 #6 w/2 #12 w/1 to 3 #14 | 1 #8 w/3 #12 w/1 or 2 #14 | 1 #10 w/3 #12 w/1 or 2 #14 |
| 2 to 5 #10 | | 1 #6 w/3 #12 w/1 or 2 #14 | 1 #8 w/4 #12 w/1 #14 | 1 #10 w/4 #12 w/1 #14 | |
| 1 #10 w/3 to 5 #14 | | 1 #6 w/4 #12 w/1 #14 | 1 #8 w/1 #10 w/1 to 4 #14 | 1 #10 w/2 to 4 #12 | |
| 3 to 6 #12 | | 1 #6 w/1 #10 w/1 to 4 #14 | 1 #8 w/1 #10 w/1 to 4 #12 | 2 #10 w/1 #12 w/1 to 3 #14 | |
| 1 #12 w/4 or 5 #14 | | 1 #6 w/1 #10 w/1 to 3 #12 | 1 #8 w/2 #10 w/1 to 3 #14 | 2 #10 w/2 #12 w/1 or 2 #14 | |
| 2 #12 w/2 to 4 #14 | | 1 #6 w/2 #10 w/1 or 2 #14 | 1 #8 w/2 #10 w/1 to 3 #12 | 2 #10 w/3 #12 w/1 #14 | |
| 3 #12 w/1 to 3 #14 | | 1 #6 w/2 #10 w/1 #12 | 1 #8 w/3 #10 w/1 or 2 #14 | 2 #10 w/1 to 4 #14 or #12 | |
| 4 #12 w/1 #14 | | 1 #6 w/1 #8 w/1 to 3 #14 | 1 #8 w/3 #10 w/1 #12 | 3 #10 w/1 #12 w/1 or 2 #14 | |
| 5 or 6 #14 | | 1 #6 w/1 #8 w/1 or 2 #12 | 2 #8 w/1 #12 w/1 to 3 #14 | 3 #10 w/2 #12 w/1 #14 | |
| 1 #6 w/1 to 4 #14 | | 1 #6 w/1 #8 w/1 #10 | 2 #8 w/2 #12 w/1 or 2 #14 | 3 #10 w/1 to 3 #14 or #12 | |
| 1 #6 w/1 to 5 #12 | | 2 #8 w/1 to 4 #14 | 2 #8 w/3 #12 w/1 #14 | 4 #10 w/1 #12 w/1 #14 | |
| 1 #6 w/1 to 3 #10 | | 2 #8 w/1 to 3 #12 | 2 #8 w/1 #10 w/1 to 3 #14 | 4 #10 w/1 #14 w/1 #12 | |



UNDERWRITER'S LABORATORIES LISTED WIRE COMBINATIONS

UL File No. E5238

The combinations listed are Cu-Cu Only. (Do Not use on Al-Al connections.)
 The combinations listed are solid and/or stranded wire unless otherwise noted.

| IDEAL Twister® Wire Connectors | | | | |
|--------------------------------|--|--------------------------------|--|-----------------------------------|
| Model | 600 Volt Maximum | | | |
| 340® | 2 to 5 #22 | 1 to 3 #12 | 2 #18 w/1 to 3 #20 or #22 | 2 #16 w/1 to 3 #20 or #22 |
| | 2 to 5 #20 | 1 #10 | 3 #18 w/1 or 2 #20 or #22 | 2 #16 w/1 to 4 #18 |
| | 2 to 5 #18 | 3 #20 w/1 or 2 #22 | 4 #18 w/1 #20 or #22 | 3 #16 w/1 to 3 #18, #20 or #22 |
| | 2 to 4 #16 | 4 #20 w/1 #22 | 1 #16 w/1 to 4 #20 or #22 | 4 #16 w/1 #20 or #22 |
| | 1 to 3 #14 | 1 #18 w/1 to 4 #20 or #22 | 1 #16 w/1 to 5 #18 | 4 #16 w/1 or 2 #18 |
| Model | 600 Volt Maximum | | | |
| 341® | 1 to 3 #10 | 1 to 6 #16 | 4 #18 w/1 or 2 #16, #14 or #12 | 1 #22 w/1 #18 w/1 #16 |
| | 1 #10 w/1 #8 | 1 #16 w/1 to 4 #14 or #12 | 4 #18 w/1 #10 | 1 #22 w/1 #20 w/1 or 2 #16 |
| | 1 to 3 #12 | 1 #16 w/1 or 2 #10 | 5 #18 w/1 #16 or #14 | 1 #14 w/1 or 2 #12 w/1 #10 |
| | 4 #12 Sol. | 2 #16 w/1 to 4 #14 | 2 to 6 #20 | 2 #14 w/1 #12 w/1 #10 |
| | 1 #12 w/1 or 2 #10 | 2 #16 w/1 to 3 #12 | 1 #20 w/1 to 4 #18, #16 or #14 | 1 #16 w/1 #12 w/1 #10 |
| | 1 #12 w/1 #8 | 2 #16 w/1 or 2 #10 | 2 #20 w/1 to 3 #18, #16 or #14 | 2 #16 w/1 #14 w/1 or 2 #12 |
| | 2 #12 w/1 #10 | 3 #16 w/1 to 3 #14 | 3 #20 w/1 or 2 #18, #16 or #14 | 2 #16 w/2 #14 w/1 #12 |
| | 1 to 5 #14 | 3 #16 w/1 or 2 #12 or #10 | 4 #20 w/1 or 2 #18, #16 or #14 | 2 #16 w/1 #12 w/1 #10 |
| | 1 #14 Sol. w/1 to 3 #12 | 4 #16 w/1 or 2 #14 or #12 | 3 to 6 #22 | 3 #16 w/1 #14 w/1 #12 or #10 |
| | 1 #14 w/1 or 2 #10 | 4 #16 w/1 #10 | 1 #22 Sol. w/1 #20 Sol. | 4 #16 w/1 #12 w/1 #10 |
| | 2 #14 w/1 or 2 #12 | 5 #16 w/1 #14 | 1 #22 w/2 to 5 #20 | 1 #18 w/1 to 4 #16, #14 or #12 |
| | 2 #14 w/1 or 2 #10 | 2 #18 w/1 to 4 #16, #14 | 1 #22 w/1 to 5 #18 or #16 | 5 #16 Sol. w/1 #10 Sol. |
| | 2 #14 w/1 #8 | 3 #18 w/1 to 3 #12 | 2 #22 w/1 to 4 #20, #18 or #16 | 1 #16 w/1 or 2 #14 w/1 #12 or #10 |
| | 3 #14 w/1 #12 or #10 | 2 #18 w/1 or 2 #10 | 3 #22 w/1 to 3 #20, #18 or #16 | 2 to 6 #18 |
| | 3 #14 w/2 #12 | 3 #18 w/1 to 3 #16, #14 or #12 | 4 #22 w/1 or 2 #20, #18 or #16 | 1 #18 w/1 or 2 #10 |
| | 4 #14 w/1 #12 or #10 | 3 #18 w/1 or 2 #10 | | |
| | Model | 600 Volt Maximum | | |
| 342® | 1 or 2 #8 | 3 to 6 #14 | 1 #16 w/1 to 3 #10 | 1 #14 w/3 #12 w/1 #10 |
| | 1 #8 w/1 #6 | 1 #14 w/1 to 4 #12 | 2 #16 w/1 to 4 #14 or #12 | 1 #14 w/1 #10 w/1 #8 |
| | 2 to 4 #10 | 1 #14 w/1 to 3 #10 | 2 #16 w/1 or 2 #10 | 2 #14 w/1 #12 w/1 or 2 #10 |
| | 1 #10 w/1 or 2 #8 | 1 #14 w/1 or 2 #8 | 3 #16 w/1 to 3 #14 | 2 #14 w/1 #12 w/1 #8 |
| | 2 #10 w/1 #8 | 1 or 2 #14 w/1 #6 | 3 #16 w/1 or 2 #12 or #10 | 2 #14 w/2 #12 w/1 #10 |
| | 2 to 6 #12 | 2 #14 w/1 to 3 #12 | 4 #16 w/1 or 2 #14 or #12 | 2 #14 w/1 #10 w/1 #8 |
| | 1 #12 w/1 or 2 #10 | 2 #14 w/1 to 3 #10 | 4 #16 w/1 #10 | 3 #14 w/1 #12 w/1 #8 |
| | 1 #12 w/3 #10 | 2 #14 w/1 #8 | 3 #18 w/3 #16 or #14 | 3 #14 w/1 #10 w/1 #8 |
| | 1 #12 w/1 or 2 #8 | 3 #14 w/1 to 3 #12 or #10 | 3 #18 w/1 or 2 #12 or #10 | 1 #16 w/1 #14 w/1 or 2 #12 |
| | 1 or 2 #12 w/1 #6 | 3 or 4 #14 w/1 #8 | 4 #18 w/1 or 2 #16, #14 or #12 | 2 #16 w/1 #14 w/1 or 2 #12 |
| | 2 #12 w/1 or 2 #10 | 3 #14 w/1 #6 | 5 #18 w/1 #16, #14, #12 or #10 | 2 #16 w/2 #14 w/1 #12 or #10 |
| | 2 #12 w/1 #8 or #6 | 4 #14 w/1 or 2 #12 or #10 | 1 #12 w/1 #10 w/1 #8 | 2 #16 w/1 #12 w/1 #10 |
| | 2 #12 w/2 #8 | 4 #14 w/1 #6 | 1 #14 w/1 #12 w/1 or 2 #10 | 3 #16 w/1 #14 w/1 or 2 #12 |
| | 3 #12 w/1 #10 or #8 | 5 #14 w/1 #12 or #10 | 1 #14 w/1 #12 w/1 #8 or #6 | 3 #16 w/1 #14 w/1 #10 |
| | 3 #12 w/2 #10 | 5 #14 w/1 #8 | 1 #14 w/2 #12 w/1 or 2 #10 | 4 #16 w/1 #14 w/1 #12 |
| | 4 #12 w/1 #10 | 1 #16 w/2 to 5 #14 or #12 | 1 #14 w/2 #12 w/1 #8 | |
| | IDEAL Twister® Al/Cu Wire Connectors | | | |
| Model | 600 Volt Maximum | | 600 Volt Maximum | |
| 65 | The wire combinations listed below are for Aluminum to Copper conductors. (Do Not use on Aluminum to Aluminum conductors.) | | The wire combinations listed below are for Copper to Copper conductors. (Do Not use on Aluminum to Aluminum conductors.) | |
| | 1 #10 Al Sol. w/1 or 2 #10 Cu Sol. | 2 #12 Al Sol. w/1 #12 Cu | 4 to 6 #22 | 3 #16 w/1 to 3 #14 |
| | 1 #10 Al w/1 or 2 #12 Cu | 1 #12 Al w/1 or 2 #14 Cu | 3 to 6 #20 | 3 #16 w/1 or 2 #12 or #10 |
| | 1 #10 Al w/1 or 2 #14 Cu | 2 #12 Al Sol. w/1 #14 Cu | 2 to 6 #18 | 4 #16 w/1 or 2 #14 or #12 |
| | 1 #10 Al w/1 or 2 #16 Cu | 1 #10 Al w/1 or 2 #18 Cu | 1 to 6 #16 | 4 #16 w/1 #10 |
| | 2 #10 Al Sol. w/1 #12 Cu | 2 #10 Al Sol. w/1 #16 Cu | 1 to 5 #14 | 5 #16 w/1 #14 |
| | 2 #10 Al Sol. w/1 #14 Cu | 2 #10 Al Sol. w/1 #18 Cu | 1 to 3 #12 | 5 #16 Sol. w/1 #10 Sol. |
| | 2 #12 Al Sol. w/1 #10 Cu Sol. | 1 #12 Al w/1 or 2 #16 Cu | 4 #12 Sol. | 1 #14 Sol. w/1 to 3 #12 |
| | 2 #12 Al Sol. w/1 #10 Cu Str. | 1 #12 Al w/1 or 2 #18 Cu | 1 to 3 #10 | 1 #14 w/1 or 2 #10 |
| | 1 #12 Al Sol. w/1 or 2 #10 Cu | 2 #12 Al Sol. w/1 #16 Cu | 2 #22 w/3 to 5 #20 | 1 #14 w/1 or 2 #12 w/1 #10 |
| | 1 #12 Al Str. w/1 or 2 #10 Cu Sol. | 2 #12 Al Sol. w/1 #18 Cu | 1 #22 w/1 to 5 #18 or #16 | 2 #14 w/1 #12 w/1 #10 |
| | 1 #12 Al w/1 or 2 #12 Cu | | 2 #22 w/1 to 4 #20, #18 or #16 | 2 #14 w/1 or 2 #12 |
| | | | 3 #22 w/1 to 3 #20, #18 or #16 | 2 #14 w/1 or 2 #10 |
| | | | 4 #22 w/1 or 2 #20, #18 or #16 | 2 #14 w/1 #8 |
| | | | 1 #20 w/1 to 4 #18, #16 or #14 | 3 #14 w/1 #12 or #10 |
| | | | 2 #20 w/1 to 3 #18, #16 or #14 | 3 #14 w/2 #12 |
| | | | 3 #20 w/1 or 2 #18, #16 or #14 | 4 #14 w/1 #12 or #10 |
| | | 4 #20 w/1 or 2 #18, #16 or #14 | 1 #12 w/1 or 2 #10 | |
| | | 1 #18 w/1 to 4 #16, #14 or #12 | 1 #12 w/1 #8 | |
| | | 1 #18 w/1 or 2 #10 | 2 #12 w/1 #10 | |
| | | 2 #18 w/1 to 4 #16, #14 or #12 | 1 #10 w/1 #8 | |
| | | 2 #18 w/1 or 2 #10 | 1 #22 w/1 #18 w/1 #16 | |
| | | 3 #18 w/1 or 2 #10 | 1 #22 w/1 #20 w/1 or 2 #16 | |
| | | 4 #18 w/1 or 2 #16, #14 or #12 | 1 #16 w/1 or 2 #14 w/1 #12 or #10 | |
| | | 4 #18 w/1 #10 | 1 #16 w/1 #12 w/1 #10 | |
| | | 5 #18 w/1 #16 or #14 | 2 #16 w/1 #14 w/1 or 2 #12 | |
| | | 1 #16 w/1 to 4 #14 or #12 | 2 #16 w/2 #14 w/1 #12 | |
| | | 1 #16 w/1 or 2 #10 | 2 #16 w/1 #12 w/1 #10 | |
| | | 2 #16 w/1 to 4 #14 | 3 #16 w/1 #14 w/1 #12 or #10 | |
| | | 2 #16 w/1 to 3 #12 | 4 #16 w/1 #12 w/1 #10 | |
| | | 2 #16 w/1 or 2 #10 | | |



UNDERWRITER'S LABORATORIES LISTED WIRE COMBINATIONS

UL File No. E5238

The combinations listed are Cu-Cu Only. (Do Not use on Al-Al connections.)
 The combinations listed are solid and/or stranded wire unless otherwise noted.

| IDEAL In-Sure® Push-In Wire Connectors | | | | |
|---|--|-----------------------------------|--------------------------------|--------------------------------|
| Model | 600 Volt Maximum | | | |
| 32 | #12 to #20 Sol. | | | |
| 33 | #12 to #16 Str. (≤ 19 Str.) | | | |
| 34 | #18 Str. (7 Str.) | | | |
| | #14 to #18 Str. Tin-bonded (≤ 19 Str.) | | | |
| Model | 600 Volt Maximum | | | |
| 39 | #10 to #14 Sol. | | | |
| | #10 to #12 Str. (≤ 19 Str.) | | | |
| | #10 to #14 Str. Tin-bonded (≤ 19 Str.) | | | |
| IDEAL SpliceLine™ Wire Connector | | | | |
| Model | 600 Volt Maximum | | | |
| 42 | #12 to #20 Sol. | | | |
| | #12 to #16 Str. (≤ 19 Str.) | | | |
| | #14 to #18 Str. Tin-bonded (≤ 19 Str.) | | | |
| IDEAL WeatherProof™ Wire Connectors | | | | |
| Model | 600 Volt Maximum | | | |
| 61 | 1 or 2 #14 | 1 #14 w/1 #16 | 2 #16 w/1 to 3 #22 | 2 #18 w/1 or 2 #22 or #20 |
| | 1 #16 Str. | 1 #14 w/1 #16 w/1 #18 | 2 #16 w/1 or 2 #20 | 1 #18 w/2 to 4 #20 |
| | 2 #16 | 1 #14 w/1 or 2 #18 | 1 #16 w/1 or 2 #18 | 1 #18 w/3 or 4 #22 |
| | 1 to 4 # 18 Str. | 1 #14 w/1 to 3 #20 | 1 #16 w/1 to 3 #20 | 1 or 2 #16 w/1 #20 w/1 #22 |
| | 2 to 4 #18 Sol. | 1 # 14 w/1 to 3 #22 | 1 #16 w/1 to 3 #22 | 1 or 2 #18 w/1 #20 w/1 #22 |
| | 2 to 4 #20 | 2 #16 w/1 #18 | 3 #18 w/1 #22 or #20 | |
| Model | 600 Volt Maximum | | | |
| 62 | 2 to 6 #18 | 1 to 4 #12 Sol. | 2 #18 w/1 to 4 #16 or #14 | 1 #12 w/1 or 2 #10 |
| | 1 to 6 #16 | 1 to 3 #10 | 1 #14 w/1 to 3 #12 | 1 #12 w/1 #8 |
| | 1 to 5 #14 | 1 #18 w/1 to 4 #16, #14 or #12 | 1 #14 w/1 or 2 #10 | 1 #10 w/1 #8 |
| | 1 to 3 #12 | 1 #18 w/1 or 2 #10 | 2 #14 w/1 or 2 #12 or #10 | |
| Model | 600 Volt Maximum | | | |
| 63 | 3 to 6 #14 | 1 #16 w/2 to 5 #14 or #12 | 1 #14 w/1 or 2 #8 | 3 #12 w/1 #10 or #8 |
| | 2 to 6 #12 | 1 #16 w/1 to 3 #10 | 1 #12 w/1 or 2 #10 | 1 #10 w/1 or 2 #8 |
| | 2 to 5 #10 | 1 #14 w/3 or 4 #12 | 1 #12 w/1 or 2 #8 | 1 #8 w/1 #6 |
| | 1 or 2 #8 | 1 #14 w/1 to 3 #10 | 1 or 2 #12 w/1 #6 | |
| IDEAL UnderGround™ Wire Connectors | | | | |
| Model | 600 Volt Maximum | | | |
| 60 | 1 or 2 #10 | 2 #14 w/1 #12 | 2 #16 w/1 to 4 #14 | 1 #18 w/1 to 3 #12, #14 or #16 |
| | 1 to 3 #12 | 3 #14 w/1 #12 | 3 #16 w/1 to 3 #14 | 2 #18 w/1 or 2 #10 |
| | 1 #12 w/1 #8 | 1 #16 w/2 #10 | 3 #16 w/1 or 2 #10 or #12 | 2 #18 w/1 or 2 #12, #14 or #16 |
| | 1 #12 w/1 #10 | 1 #16 w/1 to 3 #12 or #14 | 3 #16 w/1 #14 w/1 #10 or #12 | 3 #18 w/1 or 2 #10 |
| | 2 #12 w/1 #10 | 1 #16 w/1 #10 or #12 w/1 or 2 #14 | 4 #16 w/1 or 2 #12 or #14 | 3 #18 w/1 or 2 #14 or #16 |
| | 1 to 4 #14 | 2 #16 w/1 or 2 #12 | 4 #16 w/1 #10 w/1 #12 | 3 #18 w/1 #10 |
| | 1 #14 Sol. w/1 to 2 #12 | 2 #16 w/1 #12 w/1 #14 | 4 #16 w/1 #10 | 1 #20 w/1 to 4 #16 or #18 |
| | 1 #14 w/1 or 2 #10 | 2 #16 w/1 or 2 #14 | 5 #16 w/1 #14 | 2 #20 w/1 to 3 #14, #16 or #18 |
| | 2 #14 w/1 #10 | 2 #16 w/1 #10 | 5 #16 Sol. w/1 #10 Sol. | |
| | Model | 600 Volt Maximum | | |
| 64 | 3 or 4 #22 Sol. | 2 to 4 #14 | 1 #18 w/1 to 4 #16, #14 or #12 | 2 #14 w/1 #12 or #10 |
| | 3 or 4 #20 Sol. | 1 to 3 #12 | 1 #16 w/1 to 4 #14 or #12 | 2 #12 w/1 #10 |
| | 2 to 4 #18 | 1 to 3 #10 | 1 #14 w/1 or 2 #12 or #10 | 1 #8 w/1 #14, #12 or #10 |
| | 2 to 4 #16 | | | |
| Model | 600 Volt Maximum | | | |
| 66 | 1 or 2 #6 | 2 #6 w/1 #10 | 2 #8 w/1 to 4 #14 | 3 #10 w/1 to 3 #14 |
| | 2 or 3 #8 | 2 #6 w/1 #12 | 3 #8 w/1 or 2 #14 | 4 #10 w/1 or 2 #12 |
| | 2 to 5 #10 | 2 #6 w/1 or 2 #14 | 1 #10 w/2 to 4 #12 | 4 #10 w/1 or 2 #14 |
| | 3 to 6 #12 | 1 #8 w/1 to 4 #10 | 1 #10 w/3 to 5 #14 | 1 #12 w/4 or 5 #14 |
| | 1 #6 w/1 or 2 #8 | 1 #8 w/1 to 5 #12 | 2 #10 w/1 to 4 #12 | 2 #12 w/2 to 4 #14 |
| | 1 #6 w/1 to 3 #10 | 1 #8 w/1 to 5 #14 | 2 #10 w/1 to 4 #14 | 3 #12 w/1 to 3 #14 |
| | 1 #6 w/1 to 5 #12 | 2 #8 w/1 or 2 #10 | 3 #10 w/1 to 3 #12 | 4 #12 w/1 #14 |
| | 1 #6 w/1 to 4 #14 | 2 #8 w/1 to 3 #12 | | |
| | | | | |
| | | | | |
| IDEAL PowerPlug® Luminaire Disconnects | | | | |
| Model | Line Side | Ballast Side | Electrical Rating | |
| 102 & 103 | #12 to #18 Sol. | #18 Sol. | 6Amps / 600Volts Max. | |
| | #12 to #14 Str. (≤ 19 Str.) | #18 Str. (7 Str.) | | |
| | #18 Str. (7 Str.) | #18 Str. Tin-bonded (≤ 16 Str.) | | |
| | #12 to #14 Str. Tin-bonded (≤ 19 Str.) | | | |
| | #16 Str. Tin-bonded (≤ 26 Str.) | | | |
| | #18 Str. Tin-bonded (≤ 16 Str.) | | | |
| Model | Line Side | Ballast Side | Electrical Ratings | |
| 182 & 183 | #18 Sol. | #18 Sol. | 3 Amps / 120 Volts | |
| | | | 1.3 Amps / 277 Volts | |
| | | | 1 Amps / 347 Volts | |
| | | | 0.75 Amps / 480 Volts | |
| | | | 0.60 Amps / 600 Volts | |



UNDERWRITER'S LABORATORIES LISTED WIRE COMBINATIONS

The combinations listed are Cu-Cu Only. (Do Not use on Al-Al connections.)
 The combinations listed are solid and/or stranded wire unless otherwise noted.

| IDEAL Crimp Connectors | | | | |
|------------------------|---|------------------------------------|--|----------------------------|
| Model | 600 Volt Maximum | | | |
| 48 | 1 to 3 #16 | 1 #16 w/1 to 5 #22 | 2 #16 w/1 #18 | 1 #18 w/2 #20 w/2 or 3 #22 |
| | 1 to 5 #18 | 1 #16 w/1 to 4 #20 | 2 #16 w/1 to 3 #22 | 1 #18 w/3 #20 w/2 #22 |
| | 1 to 6 #20 | 1 #16 w/1 to 3 #18 | 2 #16 w/1 or 2 #20 | 2 #18 w/1 or 2 #20 w/1 #22 |
| | 1 to 6 #22 | 1 #16 w/2 #22 | 2 #16 w/1 #18 w/1 #22 | 2 #18 w/1 #20 w/1 to 3 #22 |
| | 1 #14 w/1 to 3 #22 | 1 #16 w/1 #18 w/1 #22 | 1 #18 w/1 to 5 #20 or #22 | 3 #18 w/1 #20 w/1 #22 |
| | 1 #14 w/1 to 3 #20 | 1 #16 w/2 #18 w/1 #20 | 2 #18 w/1 to 3 #20 | 2 #20 w/1 to 4 #22 |
| | 1 #14 w/1 or 2 #18 | 1 #16 w/2 #18 w/1 or 2 #22 | 3 #18 w/1 to 3 #22 | 3 #20 w/1 to 3 #22 |
| | 1 #14 w/1 #16 | 1 #16 w/1 #18 w/1 #20 w/1 #22 | 3 #18 w/1 or 2 #20 | 4 #20 w/1 or 2 #22 |
| | 1 #14 w/1 #18 w/1 to 3 #22 | 1 #16 w/1 #18 w/1 or 2 #20 w/1 #22 | 1 #18 w/1 to 4 #20 w/1 #22 | 5 #20 w/1 #22 |
| | 1 #14 w/1 #18 w/1 or 2 #20 | 2 #16 w/1 #20 w/1 #22 | 1 #18 w/1 #20 w/2 to 4 #22 | 1 #20 w/1 to 4 #22 |
| | 1 #14 w/1 #18 w/1 #20 w/1 #22 | | | |
| | | | | |
| | Model | 600 Volt Maximum | | |
| 49 | 2 #14 | 1 #14 w/1 to 3 #18 | 1 #16 w/1 #18 w/1 #20 | 1 #18 w/1 #22 |
| | 1 to 4 #16 | 1 #14 w/1 to 3 #16 | 2 #16 w/1 or 2 #18 | 1 #18 w/2 to 4 #20 |
| | 1 to 6 #18 | 1 #14 w/2 or 3 #20 | 2 #16 w/2 or 3 #20 | 1 or 2 #18 w/1 #20 |
| | 1 to 6 #20 | 1 #14 w/1 #17 w/1 #20 | 3 #16 w/1 #18 w/1 #20 | 2 #18 w/1 to 4 #20 |
| | 1 #12 Str. w/1 or 2 #18 | 1 #16 w/1 to 4 #18 | 1 #17 w/1 #18 w/1 #20 (All Str.) | 2 to 4 #18 w/1 #22 |
| | 1 #12 Str. w/1 #16 | 1 #16 w/1 to 4 #20 | 1 #17 w/1 #18 w/1 #20 w/1 #22 (All Str.) | |
| Model | 600 Volt Maximum | | | |
| NC-8 | The wire combinations listed below are for Stranded conductors Only. | | | |
| | 2 #10 | 1 #10 w/2 #14 | 2 #12 w/2 #14 | 4 #14 w/1 or 2 #18 |
| | 2 or 3 #12 | 1 #10 w/1, 2 or 4 #16 | 1 #14 w/4 to 10 #18 | 1 #16 w/5 to 11 #18 |
| | 3 to 5 #14 | 1 #10 w/1 to 6 #18 | 1 #14 w/3 to 6 #16 | 2 #16 w/4 to 9 #18 |
| | 4 to 7 #16 | 1 #12 w/3 to 8 #18 | 2 #14 w/2 to 7 #18 | 3 #16 w/2 to 7 #18 |
| | 7 to 12 #18 | 1 #12 w/2 to 5 #16 | 2 #14 w/1 to 4 #16 | 4 #16 w/1 to 6 #18 |
| | 1 #8 w/1 #14, #16 or #18 | 1 #12 w/1 to 4 #14 | 3 #14 w/1 to 5 #18 | 5 #16 w/1 to 4 #18 |
| | 1 #8 w/2 #18 | 2 #12 w/1 to 4 #14 | 3 #14 w/1 to 3 #16 | 6 #16 w/1 #18 |
| | 1 #10 w/1 #12 | 2 #12 w/1 to 3 #16 | | |
| | | | | |
| Model | 600 Volt Maximum | | | |
| 410 | 2 #14 Str. | 1 #10 w/1 to 4 #14 | 6 #16 w/1 or 2 #18 | 2 #12 w/1 to 5 #18 w/1 #16 |
| | 5 to 10 #18 | 1 #10 w/1 #12 | 7 #16 w/1 #18 | 3 #12 w/1 or 2 #18 w/1 #16 |
| | 3 to 7 #16 | 1 #10 w/2 #12 | 1 #10 w/1 #18 w/5 #16 | 1 #14 w/1 #18 w/6 #16 |
| | 1 #14 Sol. w/1 #14 Str. | 1 #10 w/1, 2 or 4 to 7 #18 | 1 #10 w/1 to 3 #18 w/4 #16 | 1 #14 w/1 or 2 #18 w/5 #16 |
| | 3 to 6 #14 | 1 #10 Str. w/1 to 6 #16 Sol. | 1 #10 w/1 to 4 #18 w/3 #16 | 1 #14 w/1 to 4 #18 w/4 #16 |
| | 2 to 4 #12 | 1 #12 w/1 to 9 #18 or 1 to 7 #16 | 1 #10 w/1 to 6 #18 w/2 #16 | 1 #14 w/1 to 5 #18 w/3 #16 |
| | 2 #10 Str. | 2 #12 w/1 to 6 #18 or 1 to 4 #16 | 1 #10 w/1 to 8 #18 w/1 #16 | 1 #14 w/1 to 7 #18 w/2 #16 |
| | 1 #10 Sol. w/1 #10 Str. | 3 #12 w/1 to 3 #18 or #1 or 2 #16 | 2 #10 w/1 or 2 #16 | 1 #14 w/1 to 8 #18 w/1 #16 |
| | 1 #14 w/1 to 3 #12 | 1 #14 w/1 to 9 #18 | 2 #10 w/1 or 2 #18 w/1 #16 | 2 #14 w/1 #18 w/4 #16 |
| | 1 #14 w/1 or 2 #12 w/1 #10 | 1 #14 w/1 to 7 #16 | 2 #10 w/1 to 4 #18 | 2 #14 w/3 #18 w/3 #16 |
| | 2 #14 w/1 or 2 #12 | 2 #14 w/1 to 8 #18 or 1 to 5 #16 | 1 #12 w/1 or 2 #18 w/6 #16 | 2 #14 w/5 #18 w/2 #16 |
| | 2 #14 w/1 #10 w/1 #12 | 3 #14 w/1 to 5 #18 | 1 #12 w/1 to 3 #18 w/5 #16 | 2 #14 w/7 #18 w/1 #16 |
| | 3 #14 w/1 or 2 #12 | 3 #14 w/1 to 4 #16 | 1 #12 w/1 to 4 #18 w/4 #16 | 3 #14 w/1 or 2 #18 w/3 #16 |
| | 3 #14 w/1 #10 | 4 #14 w/1 to 3 #18 or 1 or 2 #16 | 1 #12 w/1 to 5 #18 w/3 #16 | 3 #14 w/1 to 4 #18 w/2 #16 |
| | 1 #12 w/1 to 4 #14 | 1 #16 w/3 to 7 #18 | 1 #12 w/1 to 6 #18 w/2 #16 | 3 #14 w/1 to 5 #18 w/1 #16 |
| | 2 #12 w/1 to 3 #14 | 2 #16 w/2 to 8 #18 | 1 #12 w/1 to 8 #18 w/1 #16 | 4 #14 w/1 or 2 #18 w/1 #16 |
| | 2 #12 w/1 #10 | 3 #16 w/1 to 7 #18 | 2 #12 w/1 #18 w/4 #16 | |
| | 2 #10 w/1 or 2 #14 | 4 #16 w/1 to 5 #18 | 2 #12 w/1 to 3 #18 w/3 #16 | |
| | 2 #10 w/1 #12 | 5 #16 w/1 to 4 #18 | 2 #12 w/1 to 4 #18 w/2 #16 | |
| | | | | |
| Model | 600 Volt Maximum | | | |
| 411 | 2 #8 | 3 #10 w/1 #12 | 1 #10 w/2 to 4 #12 | 3 #12 w/1 or 2 #16 |
| | 2 #8 w/1 #12 | 3 #10 w/1 or 2 #14 | 1 #10 w/3 or 4 #14 | 3 #12 w/1 or 2 #18 |
| | 2 #8 w/1 or 2 #14 | 3 #10 w/1 or 2 #16 | 1 #10 w/4 #16 | 2 #12 w/2 or 3 #14 |
| | 1 #8 w/1 or 2 #10 | 3 #10 w/1 or 2 #18 | 3 to 5 #12 | 2 #12 w/3 #16 |
| | 1 #8 w/1 to 3 #12 | 2 #10 w/1 to 3 #12 | 4 #12 w/1 #14 | 1 #12 w/4 #14 |
| | 1 #8 w/1 to 4 #14 | 2 #10 w/1 to 3 #14 | 4 #12 w/1 #16 | 5 #14 |
| | 2 or 3 #10 | 2 #10 w/1 to 3 #16 | 4 #12 w/1 #18 | |
| | 4 #10 Sol. | 2 #10 w/1 to 3 #18 | 3 #12 w/1 or 2 #14 | |
| Model | 600 Volt Maximum | | | |
| 412 | 1 #4 w/1 to 3 #14 | 1 #10 w/1 to 5 #14 | 2 #12 w/1 to 5 #16 | 4 #14 w/1 to 3 #16 |
| | 1 #4 w/1 or 2 #12 | 1 #10 w/1 to 5 #12 | 2 #12 w/1 to 5 #14 | 5 #14 w/1 or 2 #18 |
| | 1 #4 w/1 #10 | 2 #10 w/1 to 5 #18 | 3 #12 w/1 to 3 #18 | 5 #14 w/1 or 2 #16 |
| | 1 #4 w/1 #8 | 2 #10 w/1 to 5 #16 | 3 #12 w/1 to 3 #16 | 6 #14 w/1 #18 |
| | 1 #6 w/1 to 6 #14 | 2 #10 w/1 to 5 #14 | 3 #12 w/1 to 4 #14 | 6 #14 w/1 #16 |
| | 1 #6 w/1 to 5 #12 | 2 #10 w/1 to 5 #12 | 4 #12 w/1 to 3 #18 | 1 #16 w/4 to 6 #18 |
| | 1 #6 w/1 to 3 #10 | 3 #10 w/1 to 4 #18 | 4 #12 w/1 to 3 #16 | 2 #16 w/2 to 5 #18 |
| | 1 #6 w/1 or 2 #8 | 3 #10 w/1 to 4 #16 | 4 #12 w/1 to 3 #14 | 3 #16 w/1 to 4 #18 |
| | 2 #6 w/1 #14 | 3 #10 w/1 to 4 #14 | 5 #12 w/1 or 2 #18 | 4 #16 w/1 to 3 #18 |
| | 2 #6 w/1 #12 | 3 #10 w/1 to 3 #12 | 5 #12 w/1 or 2 #16 | 5 #16 w/1 or 2 #18 |
| | 1 #8 w/1 to 5 #14 | 4 #10 w/1 to 3 #18 | 5 #12 w/1 or 2 #14 | 6 #16 w/1 #18 |
| | 1 #8 w/1 to 5 #12 | 4 #10 w/1 to 3 #16 | 1 #14 w/2 to 6 #18 | 2 #6 |
| | 1 #8 w/1 to 3 #10 | 4 #10 w/1 to 3 #14 | 1 #14 w/1 to 6 #16 | 2 or 3 #8 |
| | 2 #8 w/1 to 5 #14 | 4 #10 w/1 or 2 #12 | 2 #14 w/1 to 5 #18 | 2 to 5 #10 |
| | 2 #8 w/1 to 3 #12 | 1 #12 w/1 to 6 #18 | 2 #14 w/1 to 5 #16 | 2 to 6 #12 |
| | 2 #8 w/1 or 2 #10 | 1 #12 w/1 to 6 #16 | 3 #14 w/2 to 4 #18 | 2 to 7 #14 |
| | 1 #10 w/1 to 6 #18 | 1 #12 w/1 to 6 #14 | 3 #14 w/1 to 3 #16 | 3 to 7 #16 |
| | 1 #10 w/1 to 6 #16 | 2 #12 w/1 to 5 #16 | 4 #14 w/1 to 3 #18 | |
| | | | | |



UNDERWRITER'S LABORATORIES LISTED WIRE COMBINATIONS

The combinations listed are Cu-Cu Only. (Do Not use on Al-Al connections.)
 The combinations listed are solid and/or stranded wire unless otherwise noted.

| IDEAL Set-Screw Connectors | | | | | |
|----------------------------|--|--|-----------------------------------|----------------------------|---------------|
| Model | 300 Volt Maximum | | | | |
| 10 | 1 #10 | 2 #14 w/1 or 2 #18 | 1 #16 w/1 #18 w/1 or 2 #22 | 3 #18 w/1 #20 w/1 or 2 #22 | |
| | 1 #10 Str. w/1 #20 | 1 #14 w/1 to 3 #18 | 2 #16 w/1 to 4 #20 or #22 | 4 #18 w/1 or 2 #20 or #22 | |
| | 1 #10 Str. w/1 or 2 #22 | 2 #14 Str. w/1 #18 or #20 w/1 or 2 #22 | 2 #16 w/1 to 3 #18 | 4 #18 w/1 #20 w/1 or 2 #22 | |
| | 1 #12 | 1 #14 Str. w/1 #18 or #20 w/1 or 2 #22 | 3 #16 w/1 #18 or #20 w/1 or 2 #22 | 5 #18 w/1 #20 w/1 or 2 #22 | |
| | 1 #12 Str. w/1 #14 | 2 #14 w/1 to 3 #20 | 3 #16 w/1 to 3 #20 or #22 | 2 to 6 #20 | |
| | 1 #12 Str. w/1 #16 w/1 #18 | 1 #14 w/3 to 5 #20 | 4 #16 w/1 #18, #20 or #22 | 1 #20 w/1 to 5 #22 | |
| | 1 #12 Str. w/1 or 2 #18 or #20 | 1 #14 Str. w/1 or 2 #20 | 4 #16 w/1 #20 w/1 #22 | 2 #20 w/1 to 4 #22 | |
| | 1 #12 Str. w/1 #18 or #20 w/1 or 2 #20 | 1 #14 Str. w/2 to 5 #22 | 2 to 6 #18 | 3 #20 w/1 to 3 #22 | |
| | 1 #12 w/3 or 4 #20 or #22 | 2 #14 w/3 or 4 #22 | 1 #18 w/1 to 5 #20 or #22 | 4 #20 w/1 or 2 #22 | |
| | 1 or 2 #14 | 2 #14 Str. w/1 or 2 #22 | 1 #18 w/1 #20 w/1 or 2 #22 | 5 #20 w/1 #22 | |
| | 2 #14 w/1 #16 | 2 to 4 #16 | 2 #18 w/1 to 4 #20 or #22 | 4 to 6 #22 | |
| | 1 #14 w/1 or 2 #16 | 1 #16 w/1 to 5 #20 or #22 | 2 #18 w/1 #20 w/1 or 2 #22 | 3 #16 w/1 or 2 #18 | |
| | 2 #14 Str. w/1 #16 w/1 #20 or #22 | 1 #16 w/1 to 4 #18 | 3 #18 w/1 to 4 #22 | | |
| | 1 #14 Str. w/1 #16 w/1 #18, #20 or #22 | 1 #16 w/1 #20 w/1 or 2 #22 | 3 #18 w/1 to 3 #20 | | |
| | Model | 600 Volt Maximum | | | |
| 11 | 1 #10 | 2 #14 w/1 to 5 #20 or #22 | 2 #16 w/1 to 4 #18 | 3 #18 w/1 to 5 #22 | |
| | 1 #10 Str. w/1 or 2 #16, #18 or #20 | 2 #14 w/1 to 4 #18 | 3 #16 w/1 to 5 #22 | 3 #18 w/1 to 3 #20 | |
| | 2 #12 | 2 #14 w/1 to 3 #16 | 3 #16 w/1 to 4 #20 | 4 #18 w/1 to 5 #22 | |
| | 1 #12 w/3 to 5 #20 | 3 #14 w/1 to 3 #22 | 3 #16 w/1 to 3 #18 | 4 #18 w/1 or 2 #20 | |
| | 1 #12 w/1 to 3 #16 or #18 | 3 #14 w/1 or 2 #18 or #20 | 4 #16 w/1 to 5 #22 | 5 #18 w/1 to 5 #22 | |
| | 1 #12 w/1 #14 | 3 #14 w/1 #16 | 4 #16 w/1 or 2 #18 or #20 | 5 #18 w/1 #20 | |
| | 2 #12 w/2 or 3 #20 | 4 or 5 #16 | 5 #16 w/1 to 4 #22 | 1 #20 w/4 or 5 #22 | |
| | 2 #12 w/1 or 2 #18 | 1 #16 w/4 or 5 #22 | 5 #16 w/1 #18 or #20 | 2 #20 w/3 to 5 #22 | |
| | 2 or 3 #14 | 1 #16 w/3 to 5 #20 | 6 or 7 #18 | 3 #20 w/3 to 5 #22 | |
| | 1 #14 w/2 to 5 #22 | 1 #16 w/2 to 5 #18 | 1 #18 w/4 or 5 #20 or #22 | 4 #20 w/3 to 5 #22 | |
| | 1 #14 w/1 to 5 #18 or #20 | 2 #16 w/1 to 5 #22 | 2 #18 w/2 to 5 #22 | 5 #20 w/1 to 5 #22 | |
| | 1 #14 w/1 to 4 #16 | 2 #16 w/2 to 5 #20 | 2 #18 w/3 or 4 #20 | | |
| | Model | 600 Volt Maximum | | | |
| | 22 | 1 or 2 #10 | 2 #10 w/1 #12 | 3 #12 w/1 #14 | 5 #14 w/1 #16 |
| | | 1 #10 Str. w/3 to 5 #20 | 2 to 4 #12 | 2 to 6 #14 | 2 #16 or #18 |
| 1 #10 w/3 to 5 #18 | | 1 #12 w/3 to 5 #18 | 1 #14 w/3 to 5 #18 | 4 to 6 #16 | |
| 1 #10 w/2 to 5 #16 | | 1 #12 w/2 to 5 #16 | 1 #14 w/2 to 5 #16 | 1 #16 w/3 to 5 #18 | |
| 1 #10 w/1 to 4 #14 | | 1 #12 w/1 to 5 #14 | 2 #14 w/2 to 4 #20 | 2 #16 w/2 to 4 #18 | |
| 1 #10 w/1 or 2 #12 | | 2 #12 w/1 to 4 #18 | 2 #14 w/1 to 4 #16 | 3 #16 w/1 to 3 #18 | |
| 2 #10 w/2 to 4 #20 | | 2 #12 w/1 to 4 #16 | 3 #14 w/2 or 3 #20 | 4 #16 w/1 or 2 #18 | |
| 2 #10 w/1 to 3 #18 | | 2 #12 w/1 to 4 #14 | 3 #14 w/1 to 3 #16 | 5 #16 w/1 #18 | |
| 2 #10 w/1 or 2 #16 | | 3 #12 w/1 to 3 #18 | 4 #14 w/1 or 2 #16 | 2 #18 | |
| 2 #10 w/1 #14 | | 3 #12 w/1 or 2 #16 | | | |
| Buchanan Crimp Connectors | | | | | |
| Model | 600 Volt Maximum | | | | |
| 2006S | 2 to 10 #18 Str. | 8 #18 w/1 #16 | 2 #10 | 1 #14 w/6 #16 w/1 #18 | |
| | 3 to 10 #18 | 2 to 7 #16 | 1 #14 w/1 #12 w/1 #10 | 1 #14 w/5 #16 w/1 or 2 #18 | |
| | 2 #18 w/1 to 6 #16 or 1 to 5 #14 | 1 #16 w/1 to 4 #14 or 1 to 3 #12 | 2 #14 w/1 #12 w/1 #10 | 1 #14 w/4 #16 w/1 to 4 #18 | |
| | 3 #18 w/1 to 3 #12 or 1 #10 | 1 #16 w/1 #10 | 1 #10 w/5 #16 w/1 #18 | 1 #14 w/3 #16 w/1 to 5 #18 | |
| | 2 #18 Str. w/1 to 5 #16 or 1 to 5 #14 | 2 #16 w/1 to 3 #14 or 1 or 2 #12 | 1 #10 w/4 #16 w/1 to 3 #18 | 1 #14 w/2 #16 w/1 to 7 #18 | |
| | 3 #18 Str. w/1 to 3 #12 or 1 #10 | 2 #16 w/1 #10 | 2 #10 w/1 #16 w/1 #18 | 1 #14 w/2 #16 w/1 to 8 #18 | |
| | 3 #18 w/1 to 5 #16 or 1 to 4 #14 | 3 #16 w/1 or 2 #14 or 1 #12 | 1 #12 w/5 #16 w/1 to 3 #18 | 2 #14 w/4 #16 w/1 #18 | |
| | 3 #18 w/1 or 2 #12 | 3 #16 w/1 #10 | 1 #12 w/4 #16 w/1 to 4 #18 | 2 #14 w/3 #16 w/3 #18 | |
| | 4 #18 w/1 to 4 #16 or 1 to 3 #14 | 4 #16 w/1 #14 or 1 #12 | 1 #12 w/3 #16 w/1 to 5 #18 | 2 #14 w/2 #16 w/5 #18 | |
| | 5 #18 w/1 or 2 #12 or 1 #10 | 2 to 5 #14 | 1 #12 w/2 #16 w/1 to 6 #18 | 2 #14 w/1 #16 w/7 #18 | |
| | 5 #18 w/1 to 3 #16 or 1 or 2 #14 | 1 #14 w/1 to 3 #12 or 1 #10 | 1 #12 w/1 #16 w/1 to 8 #18 | 3 #14 w/3 #16 w/1 or 2 #18 | |
| | 6 #18 w/1 #12 or #10 | 2 #14 w/1 or 2 #12 or 1 #10 | 2 #12 w/4 #16 w/1 #18 | 3 #14 w/2 #16 w/1 to 4 #18 | |
| | 6 #18 w/1 to 3 #16 or 1 or 2 #14 | 3 #14 w/1 #12 | 2 #12 w/2 #16 w/1 to 4 #18 | 3 #14 w/1 #16 w/1 to 5 #18 | |
| | 6 #18 w/1 #12 | 2 to 4 #12 | 2 #12 w/1 #16 w/1 to 5 #18 | 4 #14 w/1 #16 w/1 or 2 #18 | |
| | 7 #18 w/1 or 2 #16 or 1 #14 | 1 #12 w/1 #10 | 3 #12 w/1 #16 w/1 or 2 #18 | | |
| Model | 600 Volt Maximum | | | | |
| 2008S | 2 to 10 #18 | 2 #14 w/1 or 2 #12 or 1 #10 | 1 #12 w/5 #16 w/1 to 3 #18 | 1 #14 w/1 #16 w/1 to 8 #18 | |
| | 1 #18 w/1 to 6 #16 or 1 to 5 #14 | 3 #14 w/1 #12 | 1 #12 w/4 #16 w/1 to 4 #18 | 2 #14 w/4 #16 w/1 #18 | |
| | 2 #18 w/1 to 3 #12 or 1 #10 | 2 to 4 #12 | 1 #12 w/3 #16 w/1 to 5 #18 | 2 #14 w/3 #16 w/3 #18 | |
| | 2 #18 w/1 to 5 #16 or #14 | 1 #12 w/1 #10 | 1 #12 w/2 #16 w/1 to 6 #18 | 2 #14 w/2 #16 w/5 #18 | |
| | 3 #18 w/1 to 3 #12 or 1 #10 | 2 #10 | 2 #12 w/1 #16 w/1 or 2 #18 | 2 #14 w/1 #16 w/7 #18 | |
| | 2 #16 w/1 to 3 #14 or 1 or 2 #12 or 1 | 1 #14 w/1 #12 w/1 #10 | 1 #14 w/6 #16 w/1 #18 | 3 #14 w/3 #16 w/1 or 2 #18 | |
| | 3 #16 w/1 or 2 #14 or 1 #12 or #10 | 2 #14 w/1 #12 w/1 #10 | 1 #14 w/5 #16 w/1 or 2 #18 | 3 #14 w/2 #16 w/1 to 4 #18 | |
| | 4 #16 w/1 #14 or #12 | 1 #10 w/5 #16 w/1 #18 | 1 #14 w/4 #16 w/1 to 4 #18 | 3 #14 w/1 #16 w/1 to 5 #18 | |
| | 2 to 5 #14 | 1 #10 w/4 #16 w/1 to 3 #18 | 1 #14 w/3 #16 w/1 to 5 #18 | 4 #14 w/1 #16 w/1 or 2 #18 | |
| | 1 #14 w/1 to 3 #12 or 1 #10 | 2 #10 w/1 #16 w/1 #18 | 1 #14 w/2 #16 w/1 to 7 #18 | | |
| Model | 600 Volt Maximum | | | | |
| 2011S | 5 to 11 #14 Str. | 1 to 3 #14 Str. w/3 to 5 #12 Str. | 1 to 3 #14 w/3 to 5 #12 | 1 #8 w/1 #10 | |
| | 3 to 7 #12 Str. | 1 to 3 #14 Str. w/3 or 4 #10 Str. | 1 to 3 #14 w/3 to 4 #10 | 4 to 10 #14 Sol. | |
| | 2 to 5 #10 Str. | 1 or 2 #12 Str. w/3 or 4 #10 Str. | 1 or 2 #12 w/3 or 4 #10 | 3 to 6 #12 Sol. | |
| | 2 or 3 #8 Str. | 1 to 3 #12 Str. w/5 to 8 #14 Str. | 1 to 3 #12 w/5 to 8 #14 | 2 to 4 #10 Sol. | |
| | 2 #6 Str. | 2 or 4 #14 Str. w/1 #8 or #10 Str. | 1 #4 Str. w/1 #8 or #10 | 2 #8 Sol. | |
| | 1 #8 w/1 #10 Str. | 2 or 4 #14 Sol. w/1 #8 Str. | 1 #6 Str. w/1 #8 or #10 | | |
| Buchanan Termend™ Lugs | | | | | |
| Model | | | | | |
| 16-8 | 1 to 8 #16 | 1 or 2 #12 Sol. | 1 to 5 #14 Str. | 1 #8 Str. | |
| | 1 to 4 #14 Sol. | 1 #10 Sol. | 1 to 3 #12 Str. | | |



UNDERWRITER'S LABORATORIES LISTED WIRE COMBINATIONS

The combinations listed are Cu-Cu Only. (Do Not use on Al-Al connections.)
 The combinations listed are solid and/or stranded wire unless otherwise noted.

| Buchanan B-CAP® Wire Connectors | | | | |
|-------------------------------------|-----------------------------------|--|--|---|
| Model | 600 Volt Maximum | | | |
| B1 | 4 to 6 #22 | 1 #10 w/1 to 2 #14 | #16 w/#20 2 to 6* | #12 w/#20 2 to 3* |
| | 3 to 6 #20 | 1 #10 w/1 to 2 #16 | #16 w/#18 2 to 5* | #12 w/#18 2 to 3* |
| | 2 to 6 #18 | 1 #10 w/1 to 3 #18 | #14 w/#22 2 to 4* | #12 w/#16 2 to 3* |
| | 2 to 5 #16 | #20 w/#22 3 to 6* | #14 w/#20 2 to 4* | #12 w/#14 2 to 3* |
| | 2 to 4 #14 | #18 w/#22 3 to 6* | #14 w/#18 2 to 4* | |
| | 2 to 3 #12 | #18 w/#20 3 to 6* | #14 w/#16 2 to 4* | |
| | 1 #10 w/1 #12 | #16 w/#22 2 to 6* | #12 w/#22 2 to 3* | * Any wire combination totaling the number of conductors shown. |
| Model | 600 Volt Maximum | | | |
| B2 | 5 to 6 #22 | 2 #10 Str. | 1 #8 Str. w/1 #10 Str. | #14 w/#20 2 to 6* |
| | 3 to 6 #20 | 2 #10 w/1 #12 | 1 #12 w/1 #14 w/1 to 4 #16 | #14 w/#18 2 to 6* |
| | 2 to 6 #18 Sol. | 1 #10 w/1 to 4 #18 | 1 #12 w/2 #14 w/1 or 2 #16 | #14 w/#16 2 to 6* |
| | 2 to 5 #18 Str. | 2 #10 w/1 to 3 #18 | 2 #12 w/1 #14 w/1 to 3 #16 | #12 w/#22 2 to 6* |
| | 2 to 6 #16 Sol. | 1 #10 w/1 to 4 #16 | #20 w/#22 4 to 6* | #12 w/#20 2 to 6* |
| | 2 to 5 #16 Str. | 2 #10 w/1 to 3 #16 | #18 w/#22 3 to 6* | #12 w/#18 2 to 5* |
| | 2 to 6 #14 Sol. | 1 #10 w/1 to 4 #14 | #18 w/#20 3 to 6* | #12 w/#16 2 to 5* |
| | 2 to 5 #14 Str. | 2 #10 w/1 or 2 #14 | #16 w/#22 3 to 6* | #12 w/#14 2 to 5* |
| | 2 to 5 #12 Sol. | 1 #10 w/1 to 3 #12 | #16 w/#20 2 to 6* | |
| | 2 to 4 #12 Str. | 1 #8 Str. w/1 #14 Str. | #16 w/#18 2 to 6* | |
| | 2 or 3 #10 Sol. | 1 #8 Str. w/1 #12 Str. | #14 w/#22 2 to 6* | * Any wire combination totaling the number of conductors shown. |
| Model | 600 Volt Maximum | | | |
| B4 | 4 to 6 #14 | 2 #6 Str. | 2 #8 w/1 or 2 #10 | #12 w/#14 2 to 6* |
| | 2 to 5 #12 | 1 #8 w/1 to 4 #14 | 1 #6 w/1 to 4 #14 | #10 w/#14 2 to 5* |
| | 2 to 5 #10 Sol. | 1 #8 w/1 to 4 #12 | 1 #6 w/1 to 4 #12 | #10 w/#12 2 to 5* |
| | 2 to 4 #10 Str. | 2 #8 w/1 to 3 #12 | 1 #6 w/1 or 2 #10 | |
| | 2 or 3 #8 Sol. | 3 #8 Sol. w/1 #12 | 1 #6 w/1 or 2 #8 | |
| | 2 #8 Str. | 1 #8 w/1 to 4 #10 | | * Any wire combination totaling the number of conductors shown. |
| Model | | | | |
| BGR & WGR | 2 to 5 #14 | 2 #10 w/1 #12 w/1 #14 | 1 #10 w/1 to 3 #12 w/1 #14 | 3 #12 w/1 or 2 #14 |
| | 2 to 5 #12 | 2 #10 w/1 to 3 #14 | 1 #10 w/1 or 2 #12 w/1 or 2 #14 | 2 #12 w/1 to 3 #14 |
| | 2 or 3 #10 | 1 #10 w/1 to 3 #12 | 1 #10 w/1 #12 w/1 to 3 #14 | 1 #12 w/1 to 4 #14 |
| | 2 #10 w/1 or 2 #12 | 1 #10 w/1 to 4 #14 | 4 #12 w/1 #14 | |
| Buchanan B-Twist™ Wire Connectors | | | | |
| Model | 600 Volt Maximum | | | |
| BT2 | 1 to 3 #10 | 1 #10 w/2 #12 w/1 or 2 #14 | 1 or 2 #12 w/2 #14 w/1 #16 | 1 #16 w/1 #18 w/1 to 3 #22 |
| | 1 to 5 #12 | 1 #10 w/3 #12 w/1 #14 | 2 #12 w/1 to 4 #18, #16 or #14 | 2 #16 w/1 to 4 #22, #20 or #18 |
| | 1 to 6 #14 | 1 #10 w/1 to 4 #18 or #16 | 3 #12 w/1 to 3 #18, #16 or #14 | 3 #16 w/1 to 3 #22 w/1 #20 |
| | 1 to 6 #16 | 2 #10 w/1 to 3 #14 | 3 #12 w/1 #16 w/1 or 2 #18 | 3 #16 w/1 or 2 #22 w/1 #20 |
| | 2 to 6 #18 | 2 #10 w/1 to 3 #12 | 3 #12 w/1 #14 w/1 or 2 #18 or #16 | 3 #16 w/1 #18 w/1 or 2 #20 |
| | 3 to 6 #20 | 2 #10 w/1 #16 w/1 to 3 #18 | 3 #12 w/2 #14 w/1 #16 | 3 #16 w/1 #18 w/1 or 2 #22 |
| | 4 to 6 #22 | 2 #10 w/2 #14 w/1 or 2 #16 | 4 #12 w/1 or 2 #16 | 4 #16 w/1 or 2 #22, #20 or #18 |
| | 1 #8 w/1 to 5 #16 | 2 #10 w/1 #12 w/1 to 3 #16 | 4 #12 w/1 #14 | 4 #16 w/1 #22 w/1 #20 |
| | 1 #8 w/1 to 4 #14 | 2 #10 w/1 #12 w/1 to 3 #14 | 4 #12 w/1 #16 w/1 #18 | 4 #16 w/1 #18 w/1 #22 or #20 |
| | 1 #8 w/1 to 3 #12 | 2 #10 w/2 #12 w/1 or 2 #18 or #16 | 4 #12 w/1 #14 w/1 #18 or #16 | 5 #16 w/1 #22, #20 or #18 |
| | 1 #8 w/2 #12 w/1 to 3 #14 | 2 #10 w/2 #12 w/1 #14 | 1 #14 w/1 to 5 #22, #20, #18 or #16 | 1 #18 w/1 to 5 #22 or #20 |
| | 1 #8 w/1 or 2 #10 | 3 #10 w/1 to 3 #18 or #16 | 1 or 2 #14 w/1 #16 w/1 to 3 #18 | 1 to 3 #18 w/1 or 2 #22 w/1 #20 |
| | 1 #8 w/1 #10 w/1 or 2 #14 or #12 | 3 #10 w/1 or 2 #14 | 2 #14 w/1 to 4 #22, #20, #18 or #16 | 1 to 3 #18 w/2 #22 or #20 |
| | 1 #8 w/2 #10 w/1 #14 | 3 #10 w/1 #12 | 3 #14 w/1 to 3 #22, #20, #18 or #16 | 2 #18 w/1 to 4 #22 or #20 |
| | 1 #10 w/1 to 5 #18, #16 or #14 | 3 #10 w/1 #16 w/1 or 2 #18 | 3 #14 w/1 #16 w/1 or 2 #18 | 3 #18 w/1 to 3 #22 or #20 |
| | 1 #10 w/1 to 4 #12 | 3 #10 w/1 #14 w/1 or 2 #18 | 4 #14 w/1 or 2 #22, #20, #18 or #16 | 4 #18 w/1 or 2 #22 or #20 |
| | 1 #10 w/1 #16 w/1 to 4 #18 | 3 #10 w/1 #14 w/1 #16 | 4 #14 w/1 #16 w/1 #18 | 5 #18 w/1 #22 or #20 |
| | 1 #10 w/1 #14 w/1 to 4 #18 or #16 | 3 #10 w/1 #12 w/1 #18 or #16 | 5 #14 w/1 #18 or #16 | 1 #20 w/3 to 5 #22 |
| | 1 #10 w/2 #14 w/1 to 3 #16 | 1 #12 w/1 to 5 #18, #16 or #14 | 1 #16 w/1 to 5 #22, #20 or #18 | 2 #20 w/2 to 4 #22 |
| | 1 #10 w/1 #12 w/1 to 4 #18 or #16 | 1 or 2 #12 w/1 #16 w/1 to 3 #18 | 1 #16 w/1 or 2 #20 w/1 or 2 #22 or #20 | 3 #20 w/2 or 3 #22 |
| 1 #10 w/1 #12 w/1 to 4 #14 | 1 or 2 #12 w/1 #14 w/1 to 3 #18 | 2 #16 w/1 or 2 #20 w/1 or 2 #22 or #20 | 4 #20 w/2 #22 | |
| 1 #10 w/2 #12 w/1 to 3 #18 or #16 | 1 or 2 #12 w/1 #14 w/1 to 3 #16 | 1 #16 w/1 #18 w/1 to 3 #20 | 5 #20 w/1 #22 | |
| Buchanan WingTwist™ Wire Connectors | | | | |
| Model | 600 Volt Maximum | | | |
| WT41 | 1 to 3 #10 | 1 to 6 #16 | 4 #18 w/1 or 2 #16, #14 or #12 | 1 #22 w/1 #20 w/1 or 2 #16 |
| | 1 #10 w/1 #8 | 1 #16 w/1 to 4 #14 or #12 | 4 #18 w/1 #10 | 1 #14 w/1 or 2 #12 w/1 #10 |
| | 1 to 3 #12 Str. | 1 #16 w/1 or 2 #10 | 5 #18 w/1 #16 or #14 | 2 #14 w/1 #12 w/1 #10 |
| | 1 to 4 #12 Sol. | 2 #16 w/1 to 4 #14 | 2 to 6 #20 | 1 #16 w/1 #12 w/1 #10 |
| | 1 #12 w/1 or 2 #10 | 2 #16 w/1 to 3 #12 | 1 #20 w/1 to 4 #18, #16 or #14 | 2 #16 w/1 #14 w/1 or 2 #12 |
| | 1 #12 w/1 #8 | 2 #16 w/1 or 2 #10 | 2 #20 w/1 to 3 #18, #16 or #14 | 2 #16 w/2 #14 w/1 #12 |
| | 2 #12 w/1 #10 | 3 #16 w/1 to 3 #14 | 3 #20 w/1 or 2 #18, #16 or #14 | 2 #16 w/1 #12 w/1 #10 |
| | 1 to 5 #14 | 3 #16 w/1 or 2 #12 or #10 | 4 #20 w/1 or 2 #18, #16 or #14 | 3 #16 w/1 #14 w/1 #12 or #10 |
| | 1 #14 Sol. w/1 to 3 #12 | 4 #16 w/1 or 2 #14 or #12 | 3 to 6 #22 | 4 #16 w/1 #12 w/1 #10 |
| | 1 #14 w/1 or 2 #10 | 4 #16 w/1 #10 | 1 #22 Sol. w/1 #20 Sol. | 1 #18 w/1 to 4 #16, #14 or #12 |
| | 2 #14 w/1 or 2 #12 | 5 #16 w/1 #14 | 1 #22 w/2 to 5 #20 | 5 #16 Sol. w/1 #10 Sol. |
| | 2 #14 w/1 or 2 #10 | 2 #18 w/1 to 4 #16, #14 | 1 #22 w/1 to 5 #18 or #16 | 1 #16 w/1 or 2 #14 w/1 #12 |
| | 2 #14 w/1 #8 | 3 #18 w/1 to 3 #12 | 2 #22 w/1 to 4 #20, #18 or #16 | 1 #16 w/1 or 2 #14 w/1 #10 |
| | 3 #14 w/1 #12 or #10 | 2 #18 w/1 or 2 #10 | 3 #22 w/1 to 3 #20, #18 or #16 | 2 to 6 #18 |
| | 3 #14 w/2 #12 | 3 #18 w/1 to 3 #16, #14 or #12 | 4 #22 w/1 or 2 #20, #18 or #16 | 1 #18 w/1 or 2 #10 |
| | 4 #14 w/1 #12 or #10 | 3 #18 w/1 or 2 #10 | 1 #22 w/1 #18 w/1 #16 | |



UNDERWRITER'S LABORATORIES LISTED WIRE COMBINATIONS

UL File No. E5238

The combinations listed are Cu-Cu Only. (Do Not use on Al-Al connections.)
 The combinations listed are solid and/or stranded wire unless otherwise noted.

| Buchanan WingTwist™ Wire Connectors | | | | |
|-------------------------------------|---------------------|------------------------------|----------------------------|----------------------------|
| Model | 600 Volt Maximum | | | |
| WT51 | 2 to 4 # 18 | 1 #14 w/1 to 5 #18 | 1 #12 w/1 to 5 #18 | 1 to 3 #12 |
| | 2 to 4 #16 | 1 #14 w/1 to 4 #16 | 1 #12 w/1 to 3 #16 | 1 #10 w/1 to 3 #18 |
| | 1 #16 w/1 to 5 #18 | 2 #14 w/1 to 3 #18 | 1 #12 w/1 or 2 #14 | 1 #10 w/1 or 2 #16 |
| | 2 #16 w/1 to 4 #18 | 2 #14 w/1 to 3 #16 | 2 #12 w/1 or 2 #18 | 1 #10 w/1 or 2 #14 |
| | 3 #16 w/1 to 3 #18 | 3 #14 w/1 or 2 #18 | 2 #12 w/1 #16 | 1 #10 w/1 #12 |
| | 4 #16 w/1 or 2 #18 | 3 #14 w/1 #16 | 2 #12 w/1 #14 | 1 #10 |
| | 1 to 3 #14 | 3 #14 w/1 #18 | | |
| Model | 600 Volt Maximum | | | |
| WT52 | 1 #12 w/5 #14 | 1 #10 w/1 to 4 #16 | 1 #12 w/2 #14 w/1 or 2 #16 | 4 #14 w/1 or 2 #18 |
| | 1 #12 w/4 #16 | 1 #10 w/1 or 2 #14 | 2 #12 w/3 or 4 #18 | 4 #14 w/1 #16 |
| | 1 #12 w/4 #14 | 1 #10 w/1 or 2 #12 | 2 #12 w/1 to 3 #16 | 5 #14 w/1 #18 |
| | 1 #12 w/2 #14 | 1 #10 w/1 #14 w/1 to 3 #16 | 2 #12 w/1 to 3 #14 | 1 #16 w/4 or 5 #18 |
| | 1 #12 w/1 #14 | 1 #10 w/2 #14 w/1 #16 | 2 #12 w/1 #14 w/1 or 2 #16 | 2 #16 w/2 to 4 #18 |
| | 1 #10 w/3 #14 | 1 #10 w/1 #12 w/1 #14 | 3 #12 w/1 or 2 #16 | 3 #16 w/1 to 3 #18 |
| | 1 #10 w/4 #14 | 1 #10 w/1 #12 w/1 or 2 #16 | 3 #12 w/2 #18 | 4 #16 w/1 or 2 #18 |
| | 1 #10 w/2 #14 | 2 #10 w/1 or 2 #16 | 1 #14 w/3 to 5 #18 | 5 #16 w/1 #18 |
| | 1 #10 w/1 #12 | 2 #10 w/1 #14 | 1 #14 w/3 #12 | 2 or 3 #10 |
| | 1 #8 w/1 #10 | 1 #12 w/2 to 5 #18 | 1 #14 w/2 to 5 #16 | 2 to 5 #12 |
| | 1 #8 w/1 #12 | 1 #12 w/1 to 5 #16 | 2 #14 w/1 to 4 #18 | 2 to 6 #14 |
| | 1 #8 w/1 #14 | 1 #12 w/1 to 4 #14 | 2 #14 w/1 to 4 #16 | 4 to 6 #16 |
| | 1 #10 w/2 to 5 #18 | 1 #12 w/1 #14 w/1 to 4 #16 | 3 #14 w/1 to 3 #16 | 6 #18 |
| | Model | 600 Volt Maximum | | |
| WT53 | 4 to 6 #14 | 5 #14 w/1 #18 | 1 #10 w/1 to 4 #12 | 1 #12 w/2 #14 w/1 #16 |
| | 2 to 6 #12 | 5 #14 w/1 #16 | 2 #10 w/2 to 4 #18 | 2 #12 w/1 #14 w/1 or 2 #16 |
| | 2 or 3 #10 | 1 #12 w/3 to 5 #16 | 2 #10 w/2 to 4 #16 | 1 #10 w/1 #14 w/1 to 3 #16 |
| | 2 #8 | 1 #12 w/2 to 5 #14 | 2 #10 w/1 to 4 #14 | 1 #10 w/2 #14 w/1 #16 |
| | 1 #6 | 2 #12 w/3 or 4 #18 | 2 #10 w/1 or 2 #12 | 1 #10 w/1 #12 w/1 or 2 #6 |
| | 4 #16 w/2 #18 | 2 #12 w/1 to 4 #16 | 3 #10 w/1 #14 | 1 #10 w/1 #12 w/1 to 4 #14 |
| | 1 #14 w/4 or 5 #16 | 2 #12 w/1 to 4 #14 | 3 #10 w/1 #12 | 1 #10 w/2 #12 w/1 or 3 #14 |
| | 2 #14 w/3 or 4 #18 | 3 #12 w/1 to 3 #18 | 1 #8 w/1 to 5 #14 | 1 #10 w/3 #12 w/1 #14 |
| | 2 #14 w/2 to 4 #16 | 3 #12 w/1 to 3 #16 | 1 #8 w/1 to 3 #12 | 2 #10 w/2 #12 w/1 or 2 #14 |
| | 3 #14 w/1 to 3 #18 | 3 #12 w/1 to 3 #14 | 1 #8 w/1 or 2 #10 | 1 #8 w/1 #12 w/1 to 3 #14 |
| | 3 #14 w/1 to 3 #16 | 4 #12 w/1 or 2 #16 | 2 #8 w/1 #14 | 1 #8 w/2 #12 w/1 #14 |
| | 4 #14 w/1 or 2 #18 | 1 #10 w/1 to 5 #16 | 1 #6 w/1 #10 | 1 #8 w/1 #10 w/1 or 2 #14 |
| | 4 #14 w/1 or 2 #16 | 1 #10 w/1 to 5 #14 | 1 #12 w/1 #14 w/1 to 4 #16 | 1 #8 w/1 #10 w/1 #12 |
| | Model | 600 Volt Maximum | | |
| WT54 | 5 or 6 #14 | 1 #8 w/1 to 5 #14 | 2 #10 w/1 #12 w/1 to 3 #14 | 2 #8 w/2 #12 w/1 or 2 #14 |
| | 3 to 6 #12 | 1 #8 w/1 to 5 #12 | 2 #10 w/2 #12 w/1 or 2 #14 | 2 #8 w/3 #12 w/1 #14 |
| | 2 to 5 #10 | 1 #8 w/1 to 4 #10 | 2 #10 w/3 #12 w/1 #14 | 2 #8 w/1 #10 w/1 to 3 #14 |
| | 2 or 3 #8 | 2 #8 w/1 to 4 #14 | 3 #10 w/1 #12 w/1 or 2 #14 | 2 #8 w/1 #10 w/1 or 2 #12 |
| | 1 or 2 #6 | 2 #8 w/1 to 3 #12 | 3 #10 w/2 #12 w/1 #14 | 2 #8 w/2 #10 w/1 #14 Sol. |
| | 1 #12 w/4 or 5 #14 | 2 #8 w/1 or 2 #10 | 4 #10 w/1 #12 w/1 #14 | 1 #6 w/1 #12 w/1 to 4 #14 |
| | 2 #12 w/2 to 4 #14 | 3 #8 w/1 or 2 #14 | 1 #8 w/1 #12 w/1 to 4 #14 | 1 #6 w/2 #12 w/1 to 3 #14 |
| | 3 #12 w/1 to 3 #14 | 1 #6 w/1 to 4 #14 | 1 #8 w/2 #12 w/1 to 3 #14 | 1 #6 w/3 #12 w/1 or 2 #14 |
| | 4 #12 w/1 #14 | 1 #6 w/1 to 5 #12 | 1 #8 w/3 #12 w/1 or 2 #14 | 1 #6 w/4 #12 w/1 #14 |
| | 1 #10 w/3 to 5 #14 | 1 #6 w/1 to 3 #10 | 1 #8 w/4 #12 w/1 #14 | 1 #6 w/1 #10 w/1 to 4 #14 |
| | 1 #10 w/2 to 4 #14 | 1 #6 w/1 or 2 #8 | 1 #8 w/1 #10 w/1 to 4 #14 | 1 #6 w/1 #10 w/1 to 3 #12 |
| | 2 #10 w/1 to 4 #14 | 2 #6 w/1 #14 | 1 #8 w/1 #10 w/1 to 4 #12 | 1 #6 w/2 #10 w/1 or 2 #14 |
| | 2 #10 w/1 to 4 #12 | 2 #6 w/1 #12 | 1 #8 w/2 #10 w/1 to 3 #14 | 1 #6 w/2 #10 w/1 #12 |
| | 3 #10 w/1 to 3 #14 | 1 #10 w/1 #12 w/1 to 4 #14 | 1 #8 w/2 #10 w/1 to 3 #12 | 1 #6 w/1 #8 w/1 to 3 #14 |
| | 3 #10 w/1 to 3 #12 | 1 #10 w/2 #12 w/1 to 3 #14 | 1 #8 w/3 #10 w/1 or 2 #14 | 1 #6 w/1 #8 w/1 or 2 #12 |
| | 4 #10 w/1 or 2 #14 | 1 #10 w/3 #12 w/1 or 2 #14 | 1 #8 w/3 #10 w/1 #12 | 1 #6 w/1 #8 w/1 #10 |
| | 4 #10 w/1 or 2 #12 | 1 #10 w/4 #12 w/1 #14 | 2 #8 w/1 #12 w/1 to 3 #14 | |
| Buchanan WireTwist™ Wire Connectors | | | | |
| Model | 300 Volt Maximum | | | |
| WT1 | 1 #14 | 1 #18 w/1 to 3 #20 | | |
| | 1 or 2 #16 | 1 #18 w/1 to 4 #22 | | |
| | 2 or 3 #18 | 2 #22 Str. | | |
| | 2 to 4 #20 | 4 #20 w/1 #22 | | |
| | 3 to 4 #22 | 3 #20 w/1 or 2 #22 | | |
| | 5 #22 | 2 #20 w/1 to 3 #22 | | |
| | 1 #14 w/1 #20 or 22 | 1 #20 w/1 to 4 #22 | | |
| | 1 #16 w/1 #18 | 1 #16 w/1 #20 w/1 #18 or #20 | | |
| | 1 #16 w/1 or 2 #20 | 1 or 2 #18 w/1 #20 w/1 #22 | | |
| | 1 #16 w/1 to 3 #22 | | | |
| Model | 300 Volt Maximum | | | |
| WT2 | 1 #14 Str. | 1 #16 w/1 to 3 #18 | | |
| | 1 or 2 #16 Str. | 1 #16 w/1 #18 w/1 #20 | | |
| | 2 or 3 #16 | 1 #16 w/1 to 4 #20 or #22 | | |
| | 1 #18 Str. | 4 #18 w/1 #20 or #22 | | |
| | 2 to 4 #18 | 3 #18 w/1 or 2 #20 or #22 | | |
| | 3 to 5 #20 | 2 #18 w/1 to 3 #20 or #22 | | |
| | 1 #14 w/1 #16 | 1 #18 w/2 to 4 #20 | | |
| | 1 #14 w/1 or 2 #18 | 1 #18 w/3 or 4 #22 | | |
| | 1 #14 w/1 to 3 #20 | 4 #20 w/1 #22 | | |
| | 1 #14 w/1 to 4 #22 | 3 #20 w/1 or 2 #22 | | |
| | 2 #16 w/1 #18 | 2 #16 w/1 #20 w/1 #22 | | |
| | 2 #16 w/1 or 2 #20 | 1 #16 w/1 #22 w/1 #18 or #20 | | |
| | 2 #16 w/1 to 3 #22 | 1 or 2 #18 w/1 #20 w/1 #22 | | |



UNDERWRITER'S LABORATORIES LISTED WIRE COMBINATIONS

UL File No. E5238

The combinations listed are Cu-Cu Only. (Do Not use on Al-Al connections.)
 The combinations listed are solid and/or stranded wire unless otherwise noted.

| Buchanan WireTwist™ Wire Connectors | | | | |
|-------------------------------------|-----------------------------------|------------------------------|--|-----------------------------------|
| Model | 300 Volt Maximum | | 600 Volt Maximum | |
| WT3 | 5 #18 | 2 #16 w/2 or 3 #18 | 1 or 2 #14 | 2 #16 w/1 or 2 #22 |
| | 5 #22 | 2 #16 w/3 #22 | 1 #16 Str. | 1 #16 w/1 or 2 #18 |
| | 3 or 4 #16 | 2 #16 w/3 #20 | 2 #16 | 1 #16 w/1 to 3 #20 or #22 |
| | 4 or 5 #20 | 1 #16 w/4 #18 | 1 #18 Str. | 3 #18 w/1 #20 or #22 |
| | 2 #14 w/2 #16 | 4 #18 w/1 #20 or #22 | 2 to 4 #18 | 2 #18 w/1 or 2 #20 |
| | 2 #14 w/1 to 3 #20 or #22 | 3 #18 w/2 #20 or #22 | 1 #14 w/1 #16 | 2 #18 w/1 to 3 #22 |
| | 1 #14 w/2 #16 | 2 #18 w/3 #22 | 1 #14 w/1 #16 and 1 #18 | 1 #18 w/2 to 4 #20 |
| | 1 #14 w/3 #18 | 1 #18 Str. w/5 #22 Str. | 1 #14 w/1 or 2 #18 | 1 #18 w/3 or 4 #22 |
| | 1 #14 w/4 #20 | 4 #20 w/1 #22 | 1 #14 w/1 to 3 #20 | 1 or 2 #16 w/1 #20 w/1 #22 |
| | 4 #16 w/1 #20 or #22 | 3 #20 w/1 or 2 #22 | 1 #14 w/1 to 3 #22 | 1 #16 w/1 #18 w/1 #22 |
| | 3 #16 w/1 #18 | 2 #20 w/2 or 3 #22 | 2 #16 w/1 #18 | 1 or 2 #18 w/1 #20 w/1 #22 |
| | 3 #16 w/1 or 2 #20 or #22 | 1 #20 w/4 #22 | 2 #16 w/1 or 2 #20 | |
| | Model | 300 Volt Maximum | | 600 Volt Maximum |
| WT4 | 2 #10 | 1 #10 w/1 #12 w/1 #16 or #14 | 1 #8 | 3 #16 w/1 or 2 #22 or #20 |
| | 3 #12 | 1 #12 w/3 #14 | 1 #10 | 3 #16 w/1 #18 |
| | 5 #16 | 2 #12 w/1 or 2 #14 | 1 or 2 #12 | 4 #16 w/1 #22 or #20 |
| | 5 #18 | 2 #12 w/3 #18 | 1 to 3 #14 | 1 #18 w/2 #20 |
| | 1 #10 w/3 or 4 #16 | 1 #14 w/4 #18 or #16 | 2 to 5 #16 | 1 #18 w/3 #22 |
| | 1 #10 w/2 #14 | 2 #14 w/3 #18 or #16 | 2 to 6 #18 | 2 #18 w/3 #20 |
| | 1 #10 w/1 #16 w/4 #20 | 3 #14 w/2 #18 or #16 | 3 or 4 #20 | 3 #18 w/1 or 2 #22 or #20 |
| | 1 #10 w/1 #16 w/3 or 4 #18 | 3 #14 w/1 #18 w/2 #20 | 4 #22 | 4 #18 w/1 #22 or #20 |
| | 1 #10 w/1 #14 w/4 #22 | 4 #14 w/1 or 2 #16 | 1 #10 w/1 #14 | 2 #12 w/1 #18 w/1 or 2 #20 |
| | 1 #10 w/1 #14 w/3 #20 | 1 #16 w/4 #18 | 1 #10 w/1 #12 | 1 #14 w/1 #16 w/1 to 4 #22 |
| | 1 #10 w/1 #14 w/2 to 4 #18 | 2 #16 w/3 #18 | 1 #12 w/1 to 4 #20, #18 or #16 | 2 #14 w/1 to 2 #20 w/1 or 2 #22 |
| | 1 #10 w/1 #14 w/2 #16 | 3 #16 w/2 #18 | 1 #12 w/1 or 2 #14 | 2 #14 w/1 #16 w/1 to 3 #22 |
| | 1 #10 w/2 #14 w/1 #16 | 4 #16 w/1 #18 | 2 #12 w/1 or 2 #18 | 3 #14 w/1 #18 w/1 or 2 #22 |
| | 1 #10 w/1 #12 w/1 or 2 #18 | | 2 #12 w/1 #16 | 3 #14 w/1 #18 w/1 #20 |
| | | | 1 #14 w/2 to 4 #20 | 1 #16 w/1 #20 w/4 #22 |
| | | | 1 #14 w/1 to 3 #18 or #16 | 1 #16 w/1 #18 w/3 or 4 #22 |
| | | | 2 #14 w/1 to 3 #20 | 1 #16 w/1 #18 w/2 to 4 #20 |
| | | | 2 #14 w/1 or 2 #18 or #16 | 2 #16 w/1 or 2 #20 w/1 or 2 #22 |
| | | | 3 #14 w/1 or 2 #20 | 1 #18 w/2 #20 w/3 #22 |
| | | 3 #14 w/1 #18 or #16 | 2 #18 w/1 #20 w/3 #22 | |
| | | 4 #14 w/1 #20 or #18 | 3 #18 w/1 or 2 #20 w/1 #22 | |
| | | 1 #16 w/4 #20 | 1 #10 w/1 #16 w/1 or 2 #18 | |
| | | 1 #16 w/1 to 3 #18 | 1 #10 w/1 #14 w/1 or 2 #20 | |
| | | 1 #16 w/1 to 3 #20 | 1 #10 w/1 #14 w/1 #18 | |
| | | 1 #16 w/2 #22 | 1 #12 w/1 #16 w/1 to 4 #20 or #18 | |
| | | 2 #16 w/1 to 3 #20 | 3 #16 w/1 #18 w/1 or 2 #22 or #20 | |
| | | 2 #16 w/1 or 2 #18 | | |
| Model | 300 Volt Maximum | | 600 Volt Maximum | |
| WT6 | 2 #8 Str. | 2 #10 w/2 or 3 #14 | 1 #8 w/1 #12 | 2 #12 w/1 to 3 #14 |
| | 3 #10 | 2 #10 w/1 or 2 #12 | 1 #10 w/1 to 4 #18 or #16 | 2 #12 w/1 #16 w/1 to 3 #20 |
| | 5 #12 | 2 #10 w/1 #16 w/2 or 3 #18 | 1 #10 w/1 to 3 #14 | 2 #12 w/1 #16 w/1 to 3 #18 |
| | 1 #6 w/1 #14 | 2 #10 w/1 #14 w/1 to 3 #18 | 1 #10 w/1 or 2 #12 | 2 #12 w/1 #14 w/1 to 3 #18 |
| | 1 #6 w/1 #12 | 2 #10 w/2 #14 w/1 #16 | 1 #10 w/1 #18 w/1 to 4 #22 or #20 | 2 #12 w/1 #14 w/1 to 3 #16 |
| | 1 #6 w/1 #14 w/1 or 2 #18 | 2 #10 w/1 #12 w/1 to 3 #18 | 1 #10 w/1 #16 w/1 to 4 #20 | 3 #12 w/1 #14 |
| | 1 #6 w/1 #14 w/1 #16 | 2 #10 w/1 #12 w/1 or 2 #16 | 1 #10 w/1 #16 w/1 to 4 #18 | 3 #12 w/1 or 2 #16 or #18 |
| | 1 #8 w/4 #16 | 3 #10 w/1 #18 or #16 | 1 #10 w/1 #14 w/1 to 4 #16 or #18 | 3 #12 w/1 #18 w/1 or 2 #20 |
| | 1 #8 w/3 #14 | 2 #12 w/2 #14 w/2 #16 | 1 #10 w/2 #14 w/1 or 2 #16 | 3 #12 w/1 #16 w/1 or 2 #20 |
| | 1 #8 w/2 #12 | 3 #12 w/2 #14 | 1 #10 w/1 #12 w/1 to 3 #16 or #18 | 2 #12 w/2 #14 w/1 #16 or #18 |
| | 1 #8 w/1 #10 | 3 #12 w/3 #16 | 1 #10 w/1 #12 w/1 or 2 #14 | 1 #14 w/3 to 4 #18 |
| | 1 #8 w/1 #14 w/4 #18 | 3 #12 w/1 #16 w/2 #18 | 1 #10 w/2 #12 w/1 #16 or #18 | 1 #14 w/1 #16 w/2 to 4 #20 |
| | 1 #8 w/1 #12 w/1 to 4 #18 or #16 | 3 #12 w/1 #14 w/1 or 2 #16 | 2 #10 w/1 to 3 #18 | 1 or 2 #14 w/1 #16 w/1 to 3 #18 |
| | 1 #8 w/1 #12 w/1 or 2 #14 | 3 #12 w/1 #14 w/1 or 2 #18 | 2 #10 w/1 or 2 #16 | 2 #14 w/2 to 4 #16 |
| | 1 #8 w/2 #12 w/1 #16 or #14 | 3 #12 w/2 #14 w/1 #16 | 2 #10 w/1 #14 | 2 #14 w/1 #18 w/1 to 3 #22 or #20 |
| | 1 #8 w/1 #10 w/1 #14 or #12 | 4 #12 w/1 #18, #16 or #14 | 2 #10 w/1 #16 w/1 #18 | 2 #14 w/1 #16 w/1 to 3 #22 or #20 |
| | 1 #10 w/4 #14 | 1 #6 | 2 #10 w/1 #14 w/1 #20 | 3 #14 w/1 or 2 #18 or #16 |
| | 1 #10 w/3 #12 | 1 #8 | 1 #12 w/2 to 4 #20 or #18 | 3 #14 w/1 #16 w/1 or 2 #20 |
| | 1 #10 w/2 #14 w/3 #16 | 1 or 2 #10 | 1 #12 w/1 to 4 #16 or #14 | 3 #14 w/1 #16 w/1 or 2 #18 |
| | 1 #10 w/1 #12 w/4 #16 | 1 to 4 #12 | 1 #12 w/1 #16 w/1 to 4 #20 | 1 #16 w/4 #18 |
| | 1 #10 w/1 #12 w/3 or 4 #14 | 2 to 5 #14 | 1 #12 w/1 #16 w/1 to 4 #18 | 2 #16 w/3 or 4 #18 |
| | 1 #10 w/2 #12 w/2 or 3 #18 or #16 | 4 to 6 #16 | 1 #12 w/1 #14 w/1 to 4 #20, #18 or #16 | 2 #16 w/1 #18 w/3 #22 |
| | 1 #10 w/2 #12 w/1 or 2 #14 | 1 #8 w/1 or 2 #14 | 1 #12 w/2 #14 w/1 to 3 #16 | 2 #16 w/1 #18 w/2 or 3 #20 |
| 2 #10 w/3 #16 | | 2 #12 w/1 or 2 #18 or #16 | 3 #16 w/1 or 2 #20 or #18 | |
| | | | 4 #16 w/1 #20 or #18 | |