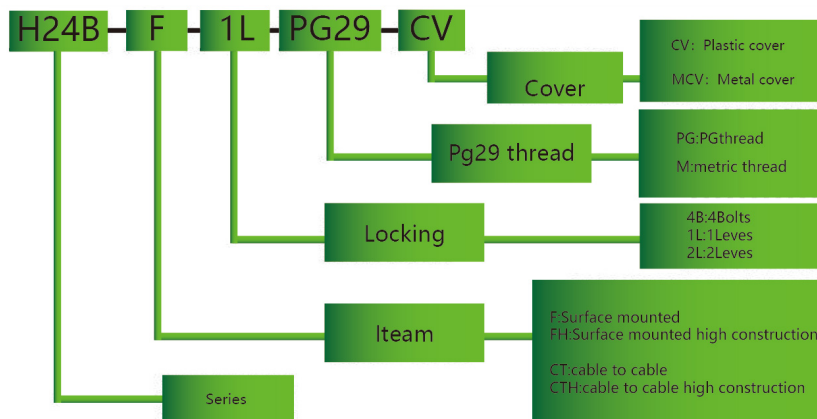
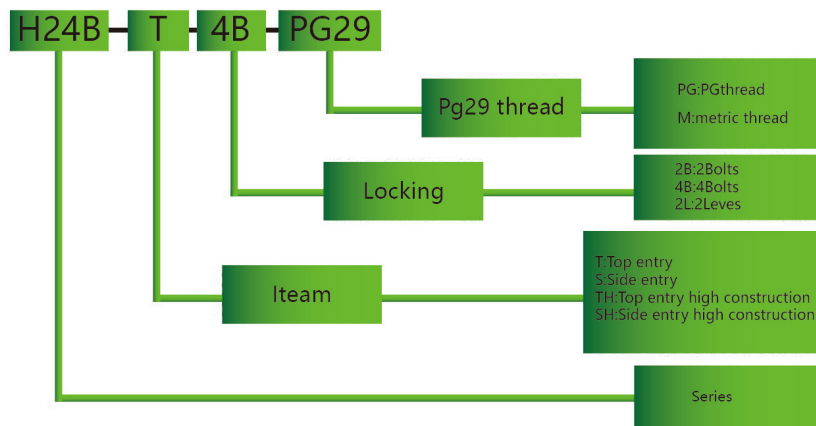
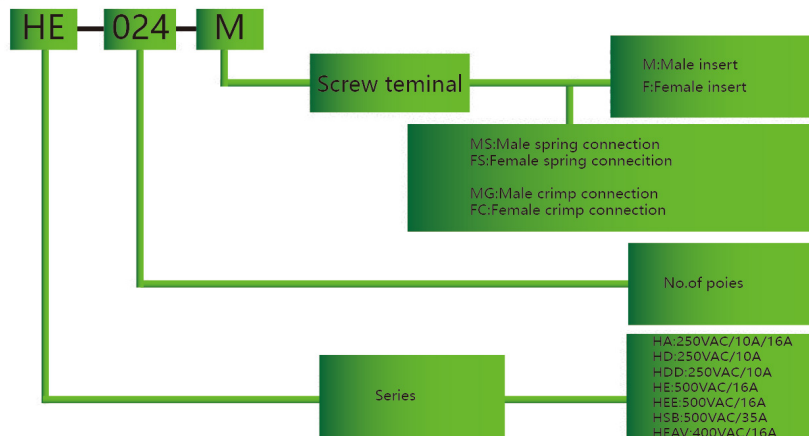
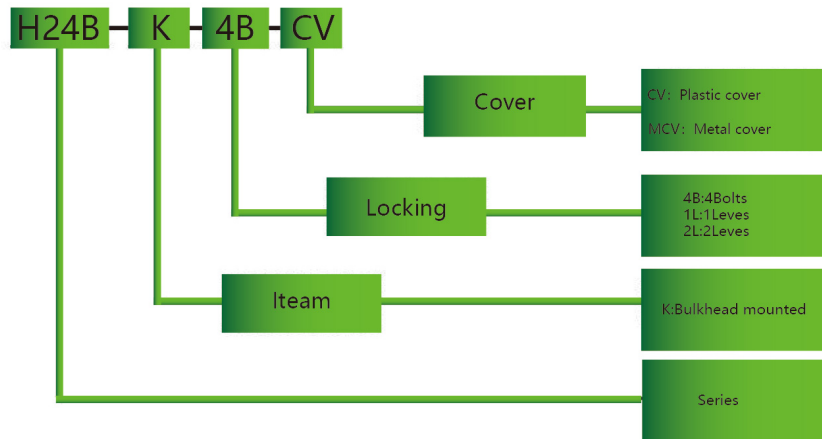


The image shows a close-up of a white industrial panel with several grey heavy-duty connectors. Black corrugated cables are plugged into these connectors and run vertically down the panel. In the background, an orange robotic arm is visible, and the scene is set in a factory or industrial environment.

# Heavy-Duty Connector

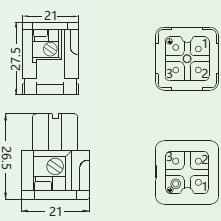
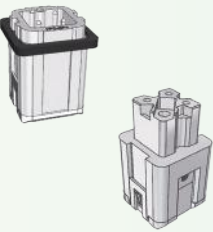
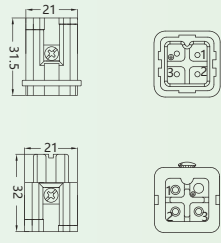




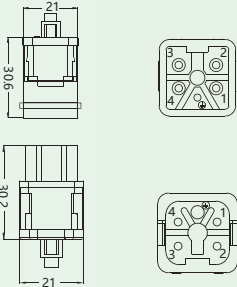
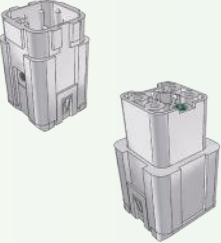
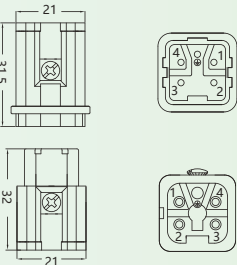
# Heavy-Duty Connector

## ● HA-003/004

Small Inserts 230/400V 10A 

| Product Picture                                                                                             | PartNumber                        | Dimension                                                                                                                | Housing               |
|-------------------------------------------------------------------------------------------------------------|-----------------------------------|--------------------------------------------------------------------------------------------------------------------------|-----------------------|
| <p>Screw Connection</p>    | <p>HA-003-M</p> <p>HA-003-F</p>   | <p>Pin arrangement wiring diagram</p>  | Match 3A housing/Hold |
| <p>Spring Connection</p>  | <p>HA-003-MS</p> <p>HA-003-FS</p> |                                       |                       |

Small Inserts 230/400V 10A 4+ 

| Product Picture                                                                                             | PartNumber                        | Dimension                                                                                                                  | Housing               |
|-------------------------------------------------------------------------------------------------------------|-----------------------------------|----------------------------------------------------------------------------------------------------------------------------|-----------------------|
| <p>Screw Connection</p>  | <p>HA-004-M</p> <p>HA-004-F</p>   | <p>Pin arrangement wiring diagram</p>  | Match 3A housing/Hold |
|                          | <p>HA-004-MS</p> <p>HA-004-FS</p> |                                        |                       |



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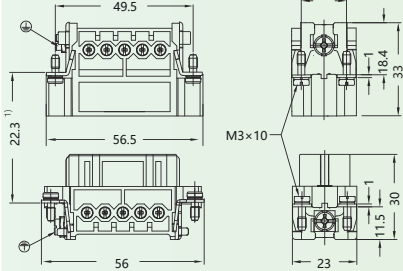
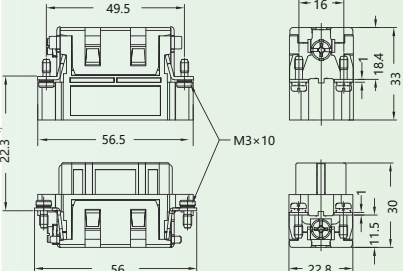
Data ,CAD,3D document please refer to: [WWW.VELLEDQ.COM](http://WWW.VELLEDQ.COM)

# Heavy-Duty Connector

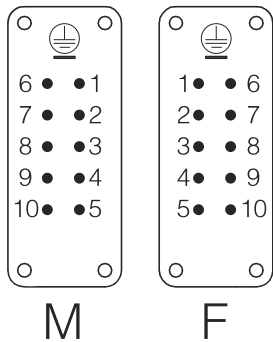


● HA-010

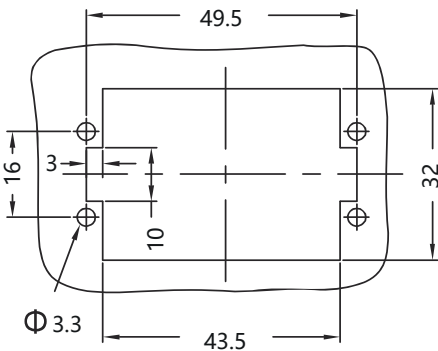
Small Inserts 230/400V 16A

| Product Picture                                                                                                | PartNumber                        | Dimension                                                                                                                           | Housing                  |
|----------------------------------------------------------------------------------------------------------------|-----------------------------------|-------------------------------------------------------------------------------------------------------------------------------------|--------------------------|
| <p>Screw Connection</p>       | <p>HA-010-M</p> <p>HA-010-F</p>   | <p>Maximum distance between connectors 24mm</p>   |                          |
| <p>Spring clip crimping</p>  | <p>HA-010-MS</p> <p>HA-010-FS</p> | <p>Maximum distance between connectors 24mm</p>  | Match 10A housing/Holder |

Pin Sequence



Panel installation hole drawing



## VELLEDQ®

Small Inserts 250V 16A 

Small Inserts 250V 16A 32+ 



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# Heavy-Duty Connector



## HE Series

### Technical Characteristics

standard

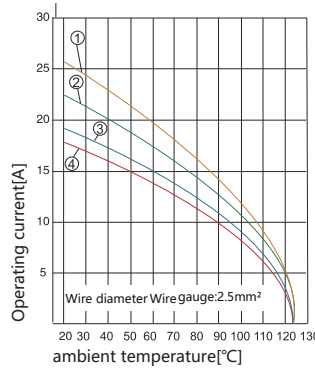
DIN EN 60 664  
DIN EN 61 984

#### Insert

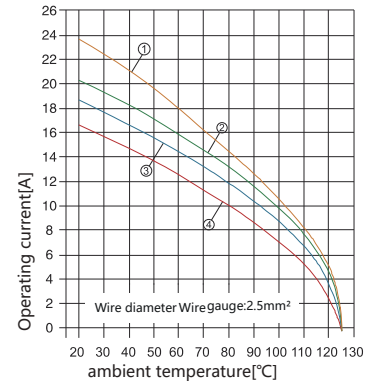
|                                                 |                                 |
|-------------------------------------------------|---------------------------------|
| ※Number of connector pins                       | 6,10,16,24,32(2×16),48(2×24)+PE |
| ※Rated current                                  | 16A                             |
| ※See the right figure for current load capacity |                                 |
| ※Rated voltage                                  | 500V                            |
| ※Rated impulse voltage                          | 6KV                             |
| ※class of pollution                             | 3                               |
| ※Parameters at pollution level 2                | 16A 400/690V 6KV 2              |
| ※According to UL/CSA rated voltage              | 600V                            |
| ※insulation resistance                          | $\geq 10^9 \Omega$              |
| ※Material Science                               | polycarbonate Polycarbonate     |
| ※Operating temperature range                    | -40°C~+125°C                    |
| ※Flame retardant grade                          | V0                              |
| ※Pluggable times                                | $\geq 500$                      |

### Current Load Capacity

The limitation of current load capacity mainly comes from the test and control process of the maximum temperature that the connector including the contact pin can withstand according to DIN EN 605 12-5

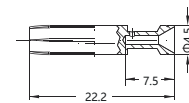
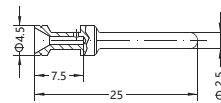


①HE-006-M/F  
②HE-010-M/F  
③HE-016-M/F  
④HE-024-M/F



①HE-006-MS/FS  
②HE-010-MS/FS  
③HE-016-MS/FS  
④HE-024-MS/FS

### Crimping Pins

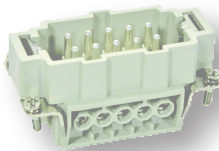


### plate with silver

| Cross section           |           | Strip length | Female    | Male      |
|-------------------------|-----------|--------------|-----------|-----------|
| 014-0.37mm <sup>2</sup> | AWG 26-22 | 7.5mm        | CESF-0.37 | CESM-0.37 |
| 0.5mm <sup>2</sup>      | AWG 20    | 7.5mm        | CESF-0.5  | CESM-0.5  |
| 0.75mm <sup>2</sup>     | AWG 18    | 7.5mm        | CESF-0.75 | CESM-0.75 |
| 1.0mm <sup>2</sup>      | AWG 18    | 7.5mm        | CESF-1.0  | CESM-1.0  |
| 1.5mm <sup>2</sup>      | AWG 16    | 7.5mm        | CESF-1.5  | CESM-1.5  |
| 2.5mm <sup>2</sup>      | AWG 14    | 7.5mm        | CESF-2.5  | CESM-2.5  |
| 3.0mm <sup>2</sup>      | AWG 12    | 7.5mm        | CESF-3.0  | CESM-3.0  |
| 4.0mm <sup>2</sup>      | AWG 12    | 7.5mm        | CESF-4.0  | CESM-4.0  |

### gold-plated

| Cross section           |           | Strip length | Female    | Male      |
|-------------------------|-----------|--------------|-----------|-----------|
| 014-0.37mm <sup>2</sup> | AWG 26-22 | 7.5mm        | CEGF-0.37 | CEGM-0.37 |
| 0.5mm <sup>2</sup>      | AWG 20    | 7.5mm        | CEGF-0.5  | CEGM-0.5  |
| 0.75mm <sup>2</sup>     | AWG 18    | 7.5mm        | CEGF-0.75 | CEGM-0.75 |
| 1.0mm <sup>2</sup>      | AWG 18    | 7.5mm        | CEGF-1.0  | CEGM-1.0  |
| 1.5mm <sup>2</sup>      | AWG 16    | 7.5mm        | CEGF-1.5  | CEGM-1.5  |
| 2.5mm <sup>2</sup>      | AWG 14    | 7.5mm        | CEGF-2.5  | CEGM-2.5  |
| 3.0mm <sup>2</sup>      | AWG 12    | 7.5mm        | CEGF-3.0  | CEGM-3.0  |
| 4.0mm <sup>2</sup>      | AWG 12    | 7.5mm        | CEGF-4.0  | CEGM-4.0  |



## VELLEDO®

## Commen Inserts



Commen Inserts 500V 16A 10+ 



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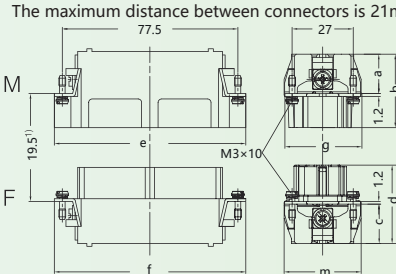
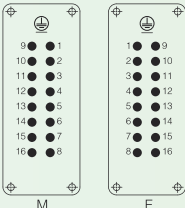
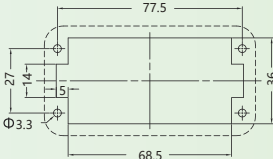
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# Heavy-Duty Connector

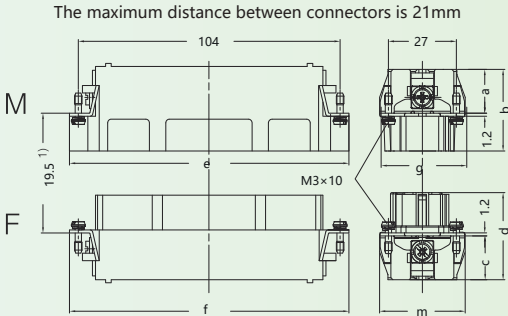
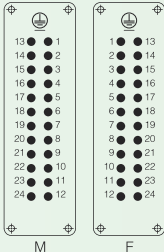
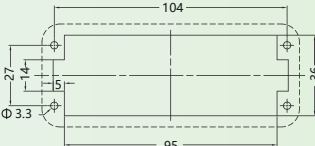


● HE-016/024

Commen Inserts 500V

| Product Picture                                                                                                                           | PartNumber                               | Dimension                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |      |      |      |      |      |      |   |   |   |     |    |      |      |    |    |      |      |      |       |    |      |      |    |    |    |      |    |       |    |      |      |    |      |      |      |    |         |      |    |      |    |      |    |      |    |       |      |      |      |      |      |      |      |      |
|-------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|------|------|------|------|------|---|---|---|-----|----|------|------|----|----|------|------|------|-------|----|------|------|----|----|----|------|----|-------|----|------|------|----|------|------|------|----|---------|------|----|------|----|------|----|------|----|-------|------|------|------|------|------|------|------|------|
| <p>Screw Connection</p> <p>Match 16B Housing/Hold</p>    | <p>HE-016-M</p><br><br><p>HE-016-F</p>   | <p>The maximum distance between connectors is 21mm</p>  <table border="1" data-bbox="984 716 1313 811"><thead><tr><th></th><th>a</th><th>b</th><th>e</th><th>g</th><th>c</th><th>d</th><th>f</th><th>m</th></tr></thead><tbody><tr><td>M/F</td><td>17</td><td>32.5</td><td>84.2</td><td>34</td><td>17</td><td>34.5</td><td>84.2</td><td>33.5</td></tr><tr><td>MC/FC</td><td>18</td><td>33.5</td><td>84.5</td><td>34</td><td>18</td><td>35</td><td>84.5</td><td>34</td></tr><tr><td>MS/FS</td><td>18</td><td>33.7</td><td>84.5</td><td>34</td><td>18.2</td><td>35.5</td><td>84.5</td><td>34</td></tr><tr><td>MSS/FSS</td><td>34.3</td><td>49</td><td>84.5</td><td>34</td><td>32.2</td><td>49</td><td>84.5</td><td>34</td></tr><tr><td>MZ/FZ</td><td>17.4</td><td>32.5</td><td>84.5</td><td>33.8</td><td>17.2</td><td>34.5</td><td>84.5</td><td>33.8</td></tr></tbody></table> |      | a    | b    | e    | g    | c    | d | f | m | M/F | 17 | 32.5 | 84.2 | 34 | 17 | 34.5 | 84.2 | 33.5 | MC/FC | 18 | 33.5 | 84.5 | 34 | 18 | 35 | 84.5 | 34 | MS/FS | 18 | 33.7 | 84.5 | 34 | 18.2 | 35.5 | 84.5 | 34 | MSS/FSS | 34.3 | 49 | 84.5 | 34 | 32.2 | 49 | 84.5 | 34 | MZ/FZ | 17.4 | 32.5 | 84.5 | 33.8 | 17.2 | 34.5 | 84.5 | 33.8 |
|                                                                                                                                           | a                                        | b                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | e    | g    | c    | d    | f    | m    |   |   |   |     |    |      |      |    |    |      |      |      |       |    |      |      |    |    |    |      |    |       |    |      |      |    |      |      |      |    |         |      |    |      |    |      |    |      |    |       |      |      |      |      |      |      |      |      |
| M/F                                                                                                                                       | 17                                       | 32.5                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | 84.2 | 34   | 17   | 34.5 | 84.2 | 33.5 |   |   |   |     |    |      |      |    |    |      |      |      |       |    |      |      |    |    |    |      |    |       |    |      |      |    |      |      |      |    |         |      |    |      |    |      |    |      |    |       |      |      |      |      |      |      |      |      |
| MC/FC                                                                                                                                     | 18                                       | 33.5                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | 84.5 | 34   | 18   | 35   | 84.5 | 34   |   |   |   |     |    |      |      |    |    |      |      |      |       |    |      |      |    |    |    |      |    |       |    |      |      |    |      |      |      |    |         |      |    |      |    |      |    |      |    |       |      |      |      |      |      |      |      |      |
| MS/FS                                                                                                                                     | 18                                       | 33.7                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | 84.5 | 34   | 18.2 | 35.5 | 84.5 | 34   |   |   |   |     |    |      |      |    |    |      |      |      |       |    |      |      |    |    |    |      |    |       |    |      |      |    |      |      |      |    |         |      |    |      |    |      |    |      |    |       |      |      |      |      |      |      |      |      |
| MSS/FSS                                                                                                                                   | 34.3                                     | 49                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | 84.5 | 34   | 32.2 | 49   | 84.5 | 34   |   |   |   |     |    |      |      |    |    |      |      |      |       |    |      |      |    |    |    |      |    |       |    |      |      |    |      |      |      |    |         |      |    |      |    |      |    |      |    |       |      |      |      |      |      |      |      |      |
| MZ/FZ                                                                                                                                     | 17.4                                     | 32.5                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | 84.5 | 33.8 | 17.2 | 34.5 | 84.5 | 33.8 |   |   |   |     |    |      |      |    |    |      |      |      |       |    |      |      |    |    |    |      |    |       |    |      |      |    |      |      |      |    |         |      |    |      |    |      |    |      |    |       |      |      |      |      |      |      |      |      |
| <p>Spring Connection</p> <p>Match 16B Housing/Hold</p>  | <p>HE-016-MS</p><br><br><p>HE-016-FS</p> | <p>Pin Sequence</p>  <p>Panel installation hole drawing</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |      |      |      |      |      |      |   |   |   |     |    |      |      |    |    |      |      |      |       |    |      |      |    |    |    |      |    |       |    |      |      |    |      |      |      |    |         |      |    |      |    |      |    |      |    |       |      |      |      |      |      |      |      |      |

Commen Inserts 500V 16A 24+

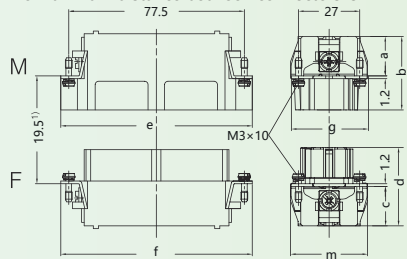
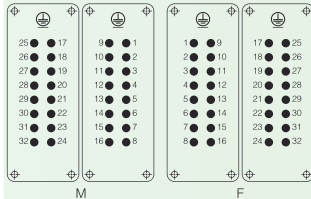
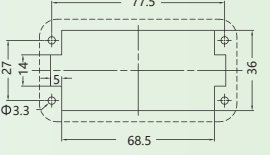
| Product Picture                                                                                                                                                                                                                | PartNumber                        | Dimension                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |     |      |      |      |     |      |   |   |   |     |    |      |     |      |    |      |     |      |       |      |      |     |    |      |      |     |    |       |      |      |     |    |      |      |     |    |         |    |    |     |    |    |    |     |    |       |      |      |     |      |      |      |     |      |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----|------|------|------|-----|------|---|---|---|-----|----|------|-----|------|----|------|-----|------|-------|------|------|-----|----|------|------|-----|----|-------|------|------|-----|----|------|------|-----|----|---------|----|----|-----|----|----|----|-----|----|-------|------|------|-----|------|------|------|-----|------|
| <p>Screw Connection</p> <p>Match 24B Housing/Hold</p>    | <p>HE-024-M</p> <p>HE-024-F</p>   | <p>The maximum distance between connectors is 21mm</p>  <table border="1" data-bbox="990 1608 1321 1701"><thead><tr><th></th><th>a</th><th>b</th><th>e</th><th>g</th><th>c</th><th>d</th><th>f</th><th>m</th></tr></thead><tbody><tr><td>M/F</td><td>17</td><td>32.5</td><td>111</td><td>33.5</td><td>17</td><td>34.5</td><td>111</td><td>33.5</td></tr><tr><td>MC/FC</td><td>18.3</td><td>33.5</td><td>111</td><td>34</td><td>18.3</td><td>35.5</td><td>111</td><td>34</td></tr><tr><td>MS/FS</td><td>18.5</td><td>33.6</td><td>111</td><td>34</td><td>18.5</td><td>35.6</td><td>111</td><td>34</td></tr><tr><td>MSS/FSS</td><td>34</td><td>49</td><td>110</td><td>34</td><td>32</td><td>49</td><td>110</td><td>34</td></tr><tr><td>MZ/FZ</td><td>17.4</td><td>32.5</td><td>111</td><td>33.8</td><td>17.2</td><td>34.5</td><td>111</td><td>33.8</td></tr></tbody></table> |     | a    | b    | e    | g   | c    | d | f | m | M/F | 17 | 32.5 | 111 | 33.5 | 17 | 34.5 | 111 | 33.5 | MC/FC | 18.3 | 33.5 | 111 | 34 | 18.3 | 35.5 | 111 | 34 | MS/FS | 18.5 | 33.6 | 111 | 34 | 18.5 | 35.6 | 111 | 34 | MSS/FSS | 34 | 49 | 110 | 34 | 32 | 49 | 110 | 34 | MZ/FZ | 17.4 | 32.5 | 111 | 33.8 | 17.2 | 34.5 | 111 | 33.8 |
|                                                                                                                                                                                                                                | a                                 | b                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | e   | g    | c    | d    | f   | m    |   |   |   |     |    |      |     |      |    |      |     |      |       |      |      |     |    |      |      |     |    |       |      |      |     |    |      |      |     |    |         |    |    |     |    |    |    |     |    |       |      |      |     |      |      |      |     |      |
| M/F                                                                                                                                                                                                                            | 17                                | 32.5                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | 111 | 33.5 | 17   | 34.5 | 111 | 33.5 |   |   |   |     |    |      |     |      |    |      |     |      |       |      |      |     |    |      |      |     |    |       |      |      |     |    |      |      |     |    |         |    |    |     |    |    |    |     |    |       |      |      |     |      |      |      |     |      |
| MC/FC                                                                                                                                                                                                                          | 18.3                              | 33.5                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | 111 | 34   | 18.3 | 35.5 | 111 | 34   |   |   |   |     |    |      |     |      |    |      |     |      |       |      |      |     |    |      |      |     |    |       |      |      |     |    |      |      |     |    |         |    |    |     |    |    |    |     |    |       |      |      |     |      |      |      |     |      |
| MS/FS                                                                                                                                                                                                                          | 18.5                              | 33.6                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | 111 | 34   | 18.5 | 35.6 | 111 | 34   |   |   |   |     |    |      |     |      |    |      |     |      |       |      |      |     |    |      |      |     |    |       |      |      |     |    |      |      |     |    |         |    |    |     |    |    |    |     |    |       |      |      |     |      |      |      |     |      |
| MSS/FSS                                                                                                                                                                                                                        | 34                                | 49                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | 110 | 34   | 32   | 49   | 110 | 34   |   |   |   |     |    |      |     |      |    |      |     |      |       |      |      |     |    |      |      |     |    |       |      |      |     |    |      |      |     |    |         |    |    |     |    |    |    |     |    |       |      |      |     |      |      |      |     |      |
| MZ/FZ                                                                                                                                                                                                                          | 17.4                              | 32.5                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | 111 | 33.8 | 17.2 | 34.5 | 111 | 33.8 |   |   |   |     |    |      |     |      |    |      |     |      |       |      |      |     |    |      |      |     |    |       |      |      |     |    |      |      |     |    |         |    |    |     |    |    |    |     |    |       |      |      |     |      |      |      |     |      |
| <p>Spring Connection</p> <p>Match 24B Housing/Hold</p>   | <p>HE-024-MS</p> <p>HE-024-FS</p> | <p>Pin Sequence</p>  <p>Panel installation hole drawing</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |     |      |      |      |     |      |   |   |   |     |    |      |     |      |    |      |     |      |       |      |      |     |    |      |      |     |    |       |      |      |     |    |      |      |     |    |         |    |    |     |    |    |    |     |    |       |      |      |     |      |      |      |     |      |



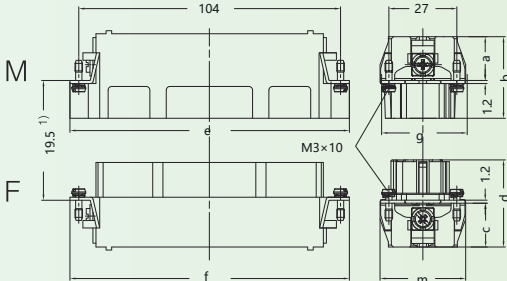
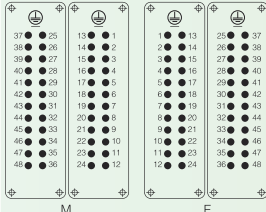
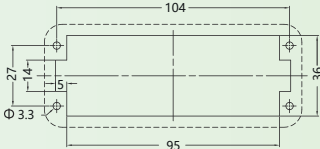
# Heavy-Duty Connector

## ● HE-032/048

Commen Inserts 500V 

| Product Picture                                                                                                                                              | PartNumber                                                                                                        | Dimension                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |      |      |      |      |      |      |   |   |   |     |    |      |      |    |    |      |      |      |       |    |      |      |    |    |    |      |    |       |    |      |      |    |      |      |      |    |         |      |    |      |    |      |    |      |    |       |      |      |      |      |      |      |      |      |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|------|------|------|------|------|---|---|---|-----|----|------|------|----|----|------|------|------|-------|----|------|------|----|----|----|------|----|-------|----|------|------|----|------|------|------|----|---------|------|----|------|----|------|----|------|----|-------|------|------|------|------|------|------|------|------|
| <div>Screw Connection</div> <div>Match 16B Housing/Hold</div> <div></div>   | <div>HE-016-M (1-16)</div> <div>HE-016-M (17-32)</div> <div>HE-016-F (1-16)</div> <div>HE-016-F (17-32)</div>     | <div>The maximum distance between connectors is 21mm</div> <div></div> <table><tr><td></td><td>a</td><td>b</td><td>e</td><td>g</td><td>c</td><td>d</td><td>f</td><td>m</td></tr><tr><td>M/F</td><td>17</td><td>32.5</td><td>84.2</td><td>34</td><td>17</td><td>34.5</td><td>84.2</td><td>33.5</td></tr><tr><td>MC/FC</td><td>18</td><td>33.5</td><td>84.5</td><td>34</td><td>18</td><td>35</td><td>84.5</td><td>34</td></tr><tr><td>MS/FS</td><td>18</td><td>33.7</td><td>84.5</td><td>34</td><td>18.2</td><td>35.5</td><td>84.5</td><td>34</td></tr><tr><td>MSS/FSS</td><td>34.3</td><td>49</td><td>84.5</td><td>34</td><td>32.2</td><td>49</td><td>84.5</td><td>34</td></tr><tr><td>MZ/FZ</td><td>17.4</td><td>32.5</td><td>84.5</td><td>33.8</td><td>17.2</td><td>34.5</td><td>84.5</td><td>33.8</td></tr></table> |      | a    | b    | e    | g    | c    | d | f | m | M/F | 17 | 32.5 | 84.2 | 34 | 17 | 34.5 | 84.2 | 33.5 | MC/FC | 18 | 33.5 | 84.5 | 34 | 18 | 35 | 84.5 | 34 | MS/FS | 18 | 33.7 | 84.5 | 34 | 18.2 | 35.5 | 84.5 | 34 | MSS/FSS | 34.3 | 49 | 84.5 | 34 | 32.2 | 49 | 84.5 | 34 | MZ/FZ | 17.4 | 32.5 | 84.5 | 33.8 | 17.2 | 34.5 | 84.5 | 33.8 |
|                                                                                                                                                              | a                                                                                                                 | b                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | e    | g    | c    | d    | f    | m    |   |   |   |     |    |      |      |    |    |      |      |      |       |    |      |      |    |    |    |      |    |       |    |      |      |    |      |      |      |    |         |      |    |      |    |      |    |      |    |       |      |      |      |      |      |      |      |      |
| M/F                                                                                                                                                          | 17                                                                                                                | 32.5                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | 84.2 | 34   | 17   | 34.5 | 84.2 | 33.5 |   |   |   |     |    |      |      |    |    |      |      |      |       |    |      |      |    |    |    |      |    |       |    |      |      |    |      |      |      |    |         |      |    |      |    |      |    |      |    |       |      |      |      |      |      |      |      |      |
| MC/FC                                                                                                                                                        | 18                                                                                                                | 33.5                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | 84.5 | 34   | 18   | 35   | 84.5 | 34   |   |   |   |     |    |      |      |    |    |      |      |      |       |    |      |      |    |    |    |      |    |       |    |      |      |    |      |      |      |    |         |      |    |      |    |      |    |      |    |       |      |      |      |      |      |      |      |      |
| MS/FS                                                                                                                                                        | 18                                                                                                                | 33.7                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | 84.5 | 34   | 18.2 | 35.5 | 84.5 | 34   |   |   |   |     |    |      |      |    |    |      |      |      |       |    |      |      |    |    |    |      |    |       |    |      |      |    |      |      |      |    |         |      |    |      |    |      |    |      |    |       |      |      |      |      |      |      |      |      |
| MSS/FSS                                                                                                                                                      | 34.3                                                                                                              | 49                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | 84.5 | 34   | 32.2 | 49   | 84.5 | 34   |   |   |   |     |    |      |      |    |    |      |      |      |       |    |      |      |    |    |    |      |    |       |    |      |      |    |      |      |      |    |         |      |    |      |    |      |    |      |    |       |      |      |      |      |      |      |      |      |
| MZ/FZ                                                                                                                                                        | 17.4                                                                                                              | 32.5                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | 84.5 | 33.8 | 17.2 | 34.5 | 84.5 | 33.8 |   |   |   |     |    |      |      |    |    |      |      |      |       |    |      |      |    |    |    |      |    |       |    |      |      |    |      |      |      |    |         |      |    |      |    |      |    |      |    |       |      |      |      |      |      |      |      |      |
| <div>Spring Connection</div> <div>Match 16B Housing/Hold</div> <div></div> | <div>HE-016-MS (1-16)</div> <div>HE-016-MS (17-32)</div> <div>HE-016-FS (1-16)</div> <div>HE-016-FS (17-32)</div> | <div>Pin Sequence</div> <div></div> <div>Panel installation hole drawing</div> <div></div>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |      |      |      |      |      |      |   |   |   |     |    |      |      |    |    |      |      |      |       |    |      |      |    |    |    |      |    |       |    |      |      |    |      |      |      |    |         |      |    |      |    |      |    |      |    |       |      |      |      |      |      |      |      |      |

Commen Inserts 500V 16A 48+ 

| Product Picture                                                                                                                                                                                                                                       | PartNumber                                                                                                        | Dimension                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |     |      |      |      |     |      |   |   |   |     |    |      |     |      |    |      |     |      |       |      |      |     |    |      |      |     |    |       |      |      |     |    |      |      |     |    |         |    |    |     |    |    |    |     |    |       |      |      |     |      |      |      |     |      |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----|------|------|------|-----|------|---|---|---|-----|----|------|-----|------|----|------|-----|------|-------|------|------|-----|----|------|------|-----|----|-------|------|------|-----|----|------|------|-----|----|---------|----|----|-----|----|----|----|-----|----|-------|------|------|-----|------|------|------|-----|------|
| <div>Screw Connection</div> <div>Match 24B Housing/Hold</div> <div><br/></div>  | <div>HE-024-M (1-24)</div> <div>HE-024-M (25-48)</div> <div>HE-024-F (1-24)</div> <div>HE-024-F (25-48)</div>     | <div>The maximum distance between connectors is 21mm</div> <div></div> <div><table><tr><td></td><td>a</td><td>b</td><td>e</td><td>g</td><td>c</td><td>d</td><td>f</td><td>m</td></tr><tr><td>M/F</td><td>17</td><td>32.5</td><td>111</td><td>33.5</td><td>17</td><td>34.5</td><td>111</td><td>33.5</td></tr><tr><td>MC/FC</td><td>18.3</td><td>33.5</td><td>111</td><td>34</td><td>18.3</td><td>35.5</td><td>111</td><td>34</td></tr><tr><td>MS/FS</td><td>18.5</td><td>33.6</td><td>111</td><td>34</td><td>18.5</td><td>35.6</td><td>111</td><td>34</td></tr><tr><td>MSS/FSS</td><td>34</td><td>49</td><td>110</td><td>34</td><td>32</td><td>49</td><td>110</td><td>34</td></tr><tr><td>MZ/FZ</td><td>17.4</td><td>32.5</td><td>111</td><td>33.8</td><td>17.2</td><td>34.5</td><td>111</td><td>33.8</td></tr></table></div> |     | a    | b    | e    | g   | c    | d | f | m | M/F | 17 | 32.5 | 111 | 33.5 | 17 | 34.5 | 111 | 33.5 | MC/FC | 18.3 | 33.5 | 111 | 34 | 18.3 | 35.5 | 111 | 34 | MS/FS | 18.5 | 33.6 | 111 | 34 | 18.5 | 35.6 | 111 | 34 | MSS/FSS | 34 | 49 | 110 | 34 | 32 | 49 | 110 | 34 | MZ/FZ | 17.4 | 32.5 | 111 | 33.8 | 17.2 | 34.5 | 111 | 33.8 |
|                                                                                                                                                                                                                                                       | a                                                                                                                 | b                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | e   | g    | c    | d    | f   | m    |   |   |   |     |    |      |     |      |    |      |     |      |       |      |      |     |    |      |      |     |    |       |      |      |     |    |      |      |     |    |         |    |    |     |    |    |    |     |    |       |      |      |     |      |      |      |     |      |
| M/F                                                                                                                                                                                                                                                   | 17                                                                                                                | 32.5                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | 111 | 33.5 | 17   | 34.5 | 111 | 33.5 |   |   |   |     |    |      |     |      |    |      |     |      |       |      |      |     |    |      |      |     |    |       |      |      |     |    |      |      |     |    |         |    |    |     |    |    |    |     |    |       |      |      |     |      |      |      |     |      |
| MC/FC                                                                                                                                                                                                                                                 | 18.3                                                                                                              | 33.5                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | 111 | 34   | 18.3 | 35.5 | 111 | 34   |   |   |   |     |    |      |     |      |    |      |     |      |       |      |      |     |    |      |      |     |    |       |      |      |     |    |      |      |     |    |         |    |    |     |    |    |    |     |    |       |      |      |     |      |      |      |     |      |
| MS/FS                                                                                                                                                                                                                                                 | 18.5                                                                                                              | 33.6                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | 111 | 34   | 18.5 | 35.6 | 111 | 34   |   |   |   |     |    |      |     |      |    |      |     |      |       |      |      |     |    |      |      |     |    |       |      |      |     |    |      |      |     |    |         |    |    |     |    |    |    |     |    |       |      |      |     |      |      |      |     |      |
| MSS/FSS                                                                                                                                                                                                                                               | 34                                                                                                                | 49                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | 110 | 34   | 32   | 49   | 110 | 34   |   |   |   |     |    |      |     |      |    |      |     |      |       |      |      |     |    |      |      |     |    |       |      |      |     |    |      |      |     |    |         |    |    |     |    |    |    |     |    |       |      |      |     |      |      |      |     |      |
| MZ/FZ                                                                                                                                                                                                                                                 | 17.4                                                                                                              | 32.5                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | 111 | 33.8 | 17.2 | 34.5 | 111 | 33.8 |   |   |   |     |    |      |     |      |    |      |     |      |       |      |      |     |    |      |      |     |    |       |      |      |     |    |      |      |     |    |         |    |    |     |    |    |    |     |    |       |      |      |     |      |      |      |     |      |
| <div>Spring Connection</div> <div>Match 24B Housing/Hold</div> <div><br/></div> | <div>HE-024-MS (1-24)</div> <div>HE-024-MS (25-48)</div> <div>HE-024-FS (1-24)</div> <div>HE-024-FS (25-48)</div> | <div>Pin Sequence</div> <div></div> <div>Panel installation hole drawing</div> <div></div>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |     |      |      |      |     |      |   |   |   |     |    |      |     |      |    |      |     |      |       |      |      |     |    |      |      |     |    |       |      |      |     |    |      |      |     |    |         |    |    |     |    |    |    |     |    |       |      |      |     |      |      |      |     |      |



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# Heavy-Duty Connector

## HEE Series

### Technical Characteristics

#### standard

DIN EN 60 664  
DIN EN 61 984

#### Insert

|                                                 |                                     |
|-------------------------------------------------|-------------------------------------|
| ※Number of connector pins                       | 10,18,32,46,40,64(2×32),92(2×46)+PE |
| ※Rated current                                  | 16A                                 |
| ※See the right figure for current load capacity |                                     |
| ※Rated voltage                                  | 500V                                |
| ※Rated impulse voltage                          | 6KV                                 |
| ※class of pollution                             | 3                                   |
| ※Parameters at pollution level 2                | 16A 830V 8KV 2                      |
| ※According to UL/CSA rated voltage              | 600V                                |
| ※insulation resistance                          | ≥10 <sup>10</sup> Ω                 |
| ※Material Science                               | polycarbonate Polycarbonate         |
| ※Operating temperature range                    | -40°C~+125°C                        |
| ※Flame retardant grade                          | V0                                  |
| ※Pluggable times                                | ≥500                                |

#### Pin

|                     |                                  |
|---------------------|----------------------------------|
| ※Material Science   | copper alloy                     |
| ※surface treatment  | gold-plated<br>plate with silver |
| ※contact resistance | ≤1mΩ                             |
| ※Wiring form        | Crimping connecton               |
| ※Crimping connecton |                                  |
| Cross Section       | 0.14-4.0mm <sup>2</sup>          |
| AWG                 | 26-12                            |
| Strip length        | 7.5mm                            |

### 16A Crimping Pins



plate with silver

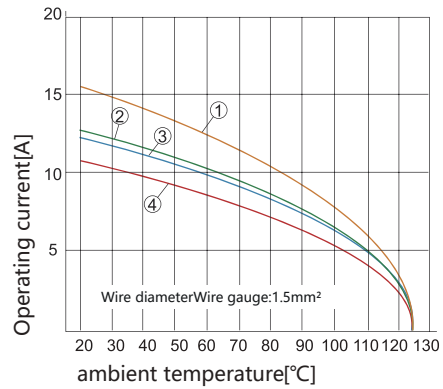
| Cross section           |           | Strip length | Female    | Male      |
|-------------------------|-----------|--------------|-----------|-----------|
| 014-0.37mm <sup>2</sup> | AWG 26-22 | 7.5mm        | CESF-0.37 | CESM-0.37 |
| 0.5mm <sup>2</sup>      | AWG 20    | 7.5mm        | CESF-0.5  | CESM-0.5  |
| 0.75mm <sup>2</sup>     | AWG 18    | 7.5mm        | CESF-0.75 | CESM-0.75 |
| 1.0mm <sup>2</sup>      | AWG 18    | 7.5mm        | CESF-1.0  | CESM-1.0  |
| 1.5mm <sup>2</sup>      | AWG 16    | 7.5mm        | CESF-1.5  | CESM-1.5  |
| 2.5mm <sup>2</sup>      | AWG 14    | 7.5mm        | CESF-2.5  | CESM-2.5  |
| 3.0mm <sup>2</sup>      | AWG 12    | 7.5mm        | CESF-3.0  | CESM-3.0  |
| 4.0mm <sup>2</sup>      | AWG 12    | 7.5mm        | CESF-4.0  | CESM-4.0  |

gold-plated

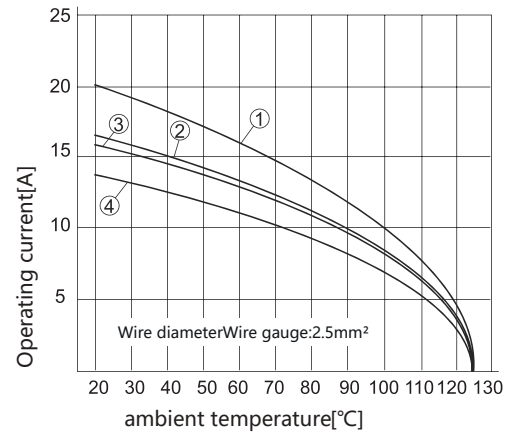
| Cross section           |           | Strip length | Female    | Male      |
|-------------------------|-----------|--------------|-----------|-----------|
| 014-0.37mm <sup>2</sup> | AWG 26-22 | 7.5mm        | CEGF-0.37 | CEGM-0.37 |
| 0.5mm <sup>2</sup>      | AWG 20    | 7.5mm        | CEGF-0.5  | CEGM-0.5  |
| 0.75mm <sup>2</sup>     | AWG 18    | 7.5mm        | CEGF-0.75 | CEGM-0.75 |
| 1.0mm <sup>2</sup>      | AWG 18    | 7.5mm        | CEGF-1.0  | CEGM-1.0  |
| 1.5mm <sup>2</sup>      | AWG 16    | 7.5mm        | CEGF-1.5  | CEGM-1.5  |
| 2.5mm <sup>2</sup>      | AWG 14    | 7.5mm        | CEGF-2.5  | CEGM-2.5  |
| 3.0mm <sup>2</sup>      | AWG 12    | 7.5mm        | CEGF-3.0  | CEGM-3.0  |
| 4.0mm <sup>2</sup>      | AWG 12    | 7.5mm        | CEGF-4.0  | CEGM-4.0  |

### Current Load Capacity

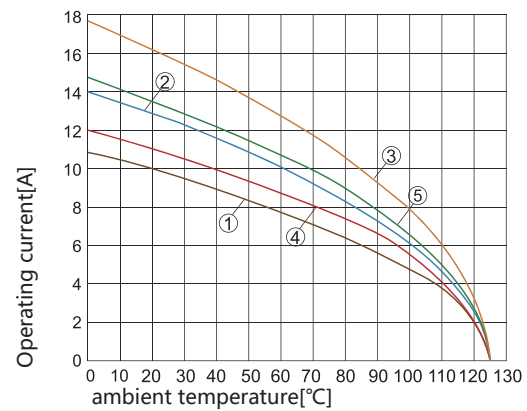
The limitation of current load capacity mainly comes from the test and control process of the maximum temperature that the connector including the contact pin can withstand according to DIN EN 605 12-5



①HEE-010  
②HEE-018  
③HEE-032  
④HEE-046



①HEE-010  
②HEE-018  
③HEE-032  
④HEE-046



①HEE-064/1.5mm<sup>2</sup>  
②HEE-064/2.5mm<sup>2</sup>  
③HEE-064/4.0mm<sup>2</sup>  
④HEE-040/1.5mm<sup>2</sup>  
⑤HEE-040/1.5mm<sup>2</sup>





## VELLEDQ®

High Density Inserts 500V 

High Density Inserts 500V 16A 18+ 

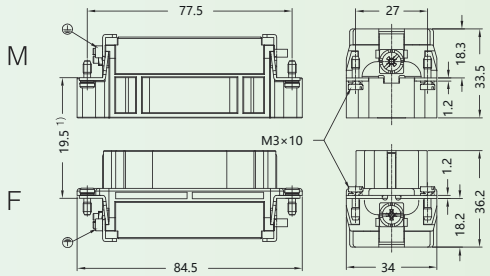
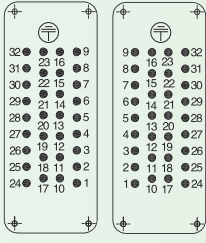
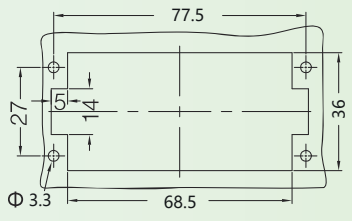
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**Data ,CAD,3D document please refer to: [WWW.VELLEDQ.COM](http://WWW.VELLEDQ.COM)**

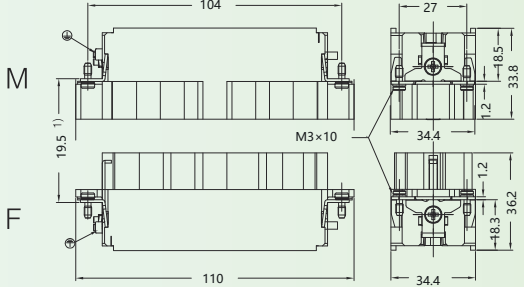
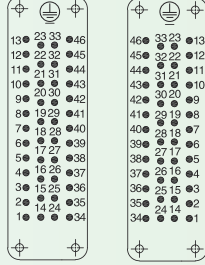
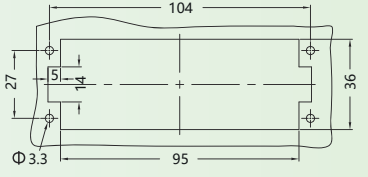
# Heavy-Duty Connector

● HEE-032/046

High Density Inserts 500V 

| Product Picture                                                                                                                                                                                                             | PartNumber                   | Dimension                                                                                                                                                                                                                                                                                                                                                                     |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Crimping Inserts</b><br>Match 16B Housing/Hold<br><br> | HEE-032-MC<br><br>HEE-032-FC | <p>The maximum distance between connectors is 21mm</p>  <p>Pin Sequence</p>  <p>Panel installation hole drawing</p>  |

High Density Inserts 500V 16A 46+ 

| Product Picture                                                                                                                                                                                                                 | PartNumber                   | Dimension                                                                                                                                                                                                                                                                                                                                                                         |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Crimping Inserts</b><br>Match 24B Housing/Hold<br><br> | HEE-046-MC<br><br>HEE-046-FC | <p>The maximum distance between connectors is 21mm</p>  <p>Pin Sequence</p>  <p>Panel installation hole drawing</p>  |



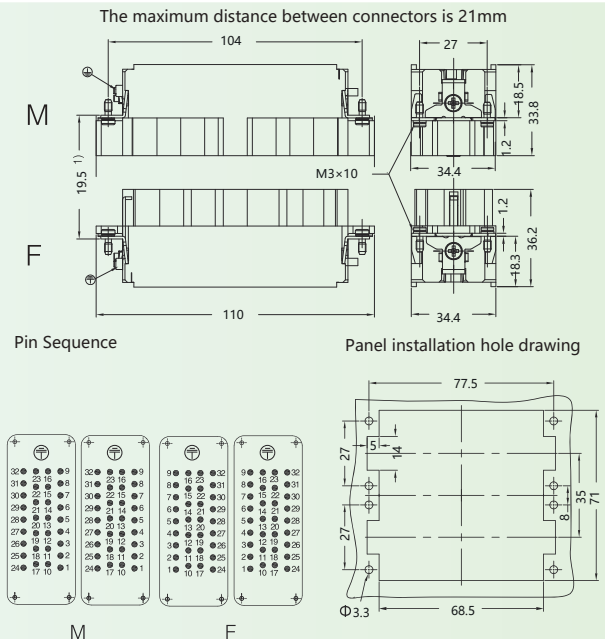
Data ,CAD,3D document please refer to: [WWW.VELLEDQ.COM](http://WWW.VELLEDQ.COM)

Heavy-Duty Connector

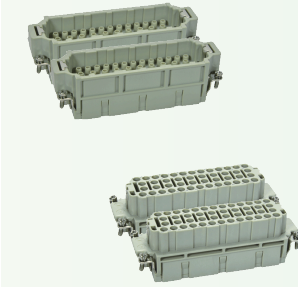


HEE-064/092

High Density Insertst 500V

| Product Picture                                                                                                                                  | PartNumber                                                                                                            | Dimension                                                                                                                                                                                                     |
|--------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <div><p>Crimping Inserts</p><p>Match 32B Housing/Hold</p></div> | <div>HEE-032-MC (1-32)</div> <div>HEE-032-MC (33-64)</div> <div>HEE-032-FC (1-32)</div> <div>HEE-032-FC (33-64)</div> | <div><p>The maximum distance between connectors is 21mm</p><p>Pin Sequence</p><p>Panel installation hole drawing</p></div> |

High Density Insertst500V 16A 64+

| Product Picture                                                                                                                                    | PartNumber                                                                                                            | Dimension |
|----------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------|-----------|
| <div><p>Crimping Inserts</p><p>Match 24B Housing/Hold</p></div> | <div>HEE-046-MC (1-46)</div> <div>HEE-046-MC (47-92)</div> <div>HEE-046-FC (1-46)</div> <div>HEE-046-FC (47-92)</div> |           |

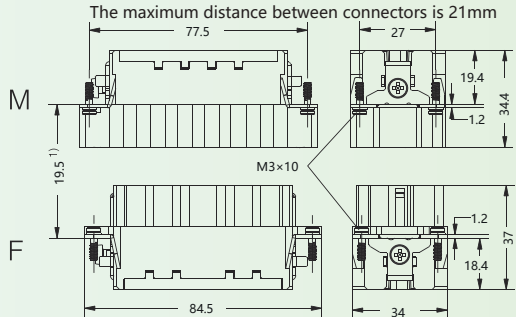
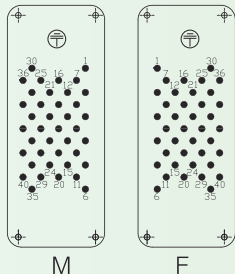
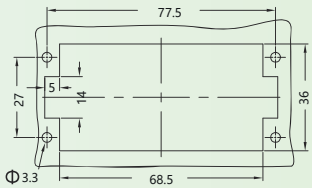


# Heavy-Duty Connector

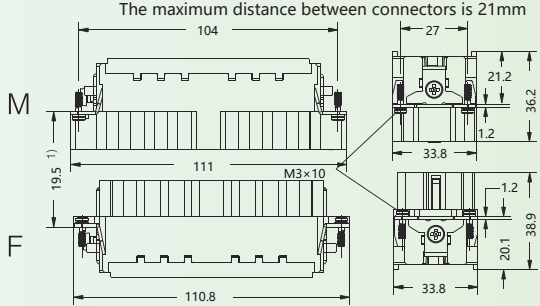
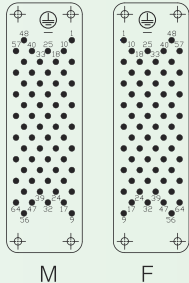
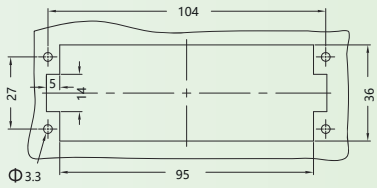


● HEEE-040/064

High Density Insertst 500V

| Product Picture                                                                                                                                                                                                                                                                                       | PartNumber | Dimension                                                                                                                                                                                                                                                                                                                                                                                                                         |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <div>Crimping Inserts</div> <div></div> <div>HEEE-040-MC</div> <div></div> <div>HEEE-040-FC</div> <div>Match 16B Housing/Hold</div> |            | <div><p>The maximum distance between connectors is 21mm</p><p>Pin Sequence</p><p>Panel installation hole drawing</p></div> <div>Cross sectionStrip lengthFemaleMale</div> |

High Density Insertst500V 16A 40+

| Product Picture                                                                                                                                                                                                                                                                                           | PartNumber | Dimension                                                                                                                                                                                                                                                                                                                                                                               |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <div>Crimping Inserts</div> <div></div> <div>HEEE-064-MC</div> <div></div> <div>HEEE-064-FC</div> <div>Match 24B Housing/Hold</div> |            | <div><p>The maximum distance between connectors is 21mm</p><p>Pin Sequence</p><p>Panel installation hole drawing</p></div> |



Data ,CAD,3D document please refer to: [WWW.VELLEDQ.COM](http://WWW.VELLEDQ.COM)

# Heavy-Duty Connector



## HD Series

### Technical Characteristics

standard

DIN EN 60 664  
DIN EN 61 984

#### Insert

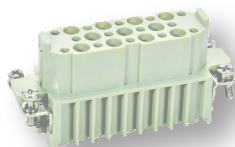
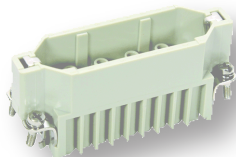
|                                                    |                                                    |
|----------------------------------------------------|----------------------------------------------------|
| ※Number of connector pins                          | 7,8,15,25,40,50(25×2),<br>64,80(40×2),128(64×2)+PE |
| ※Rated current                                     | 10A                                                |
| ※Rated voltage                                     | 250V                                               |
| ※See the right figure for current load capacity    |                                                    |
| ※Rated impulse voltage                             | 4KV                                                |
| ※Pollution degree                                  | 3                                                  |
| ※Parameters at pollution level 2                   | 10A 230/400V 4KV 2                                 |
| ※According to UL/CSA rated voltage                 | 600V                                               |
| ※Rated voltage according to CSA winding connection | 2A 30V                                             |
| ※Insulation resistance                             | $\geq 10^{10} \Omega$                              |
| ※Material Science                                  | polycarbonate Polycarbonate                        |
| ※Operating temperature range                       | -40°C ~ +125°C                                     |
| ※According to UL94 flame retardant grade           | V0                                                 |
| Pluggable times                                    | $\geq 500$                                         |

#### Electrical data of HD-008

|                                    |            |
|------------------------------------|------------|
| ※Rated current                     | 10A        |
| ※Rated voltage                     | ~50V/-120V |
| ※Rated impulse voltage             | 4KV        |
| ※Pollution degree                  | 3          |
| ※According to UL/CSA rated voltage | 50V        |
| ※Rated voltage (DC voltage)        | 120V       |

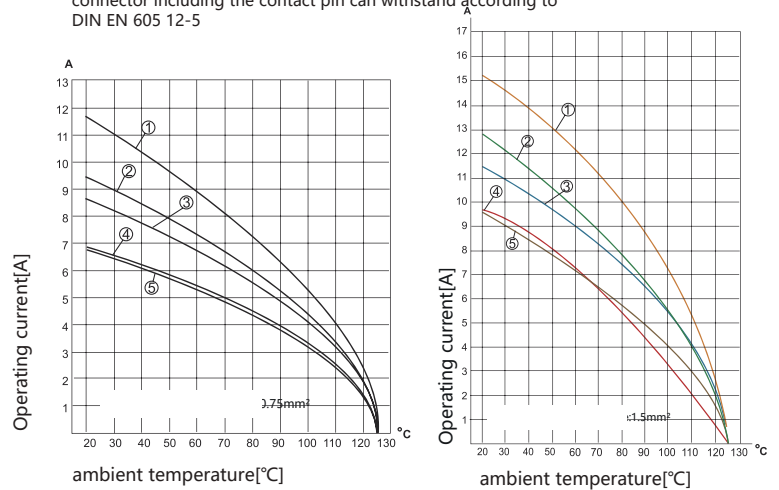
#### Pin

|                     |                                  |
|---------------------|----------------------------------|
| ※Material Science   | Cross Section                    |
| ※surface treatment  | gold-plated<br>plate with silver |
| ※contact resistance | $\leq 3m\Omega$                  |
| ※Wiring form        | Crimping connecton               |
| ※Crimping connecton |                                  |
| Cross Section       | 0.14-2.5mm <sup>2</sup>          |
| AWG                 | 26-14                            |



### Current Load Capacity

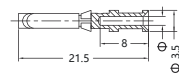
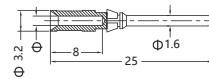
The limitation of current load capacity mainly comes from the test and control process of the maximum temperature that the connector including the contact pin can withstand according to DIN EN 605 12-5



①HD-007  
②HD-015  
③HD-025  
④HD-040  
⑤HD-064

①HD-007  
②HD-015  
③HD-025  
④HD-040  
⑤HD-064

### 10A Crimping Pins



#### plate with silver

| Cross section           | Strip length | Φ   | Female | Male      |
|-------------------------|--------------|-----|--------|-----------|
| 014-0.37mm <sup>2</sup> | AWG 26-22    | 8mm | 0.9    | CDSF-0.37 |
| 0.5mm <sup>2</sup>      | AWG 20       | 8mm | 1.1    | CDSF-0.5  |
| 0.75mm <sup>2</sup>     | AWG 18       | 8mm | 1.3    | CDSF-0.75 |
| 1.0mm <sup>2</sup>      | AWG 18       | 8mm | 1.45   | CDSF-1.0  |
| 1.5mm <sup>2</sup>      | AWG 16       | 8mm | 1.75   | CDSF-1.5  |
| 2.5mm <sup>2</sup>      | AWG 14       | 8mm | 2.25   | CDSF-2.5  |

#### gold-plated

| Cross section           | Strip length | Φ   | Female | Male      |
|-------------------------|--------------|-----|--------|-----------|
| 014-0.37mm <sup>2</sup> | AWG 26-22    | 8mm | 0.9    | CDGF-0.37 |
| 0.5mm <sup>2</sup>      | AWG 20       | 8mm | 1.1    | CDGF-0.5  |
| 0.75mm <sup>2</sup>     | AWG 18       | 8mm | 1.3    | CDGF-0.75 |
| 1.0mm <sup>2</sup>      | AWG 18       | 8mm | 1.45   | CDGF-1.0  |
| 1.5mm <sup>2</sup>      | AWG 16       | 8mm | 1.75   | CDGF-1.5  |
| 2.5mm <sup>2</sup>      | AWG 14       | 8mm | 2.25   | CDGF-2.5  |

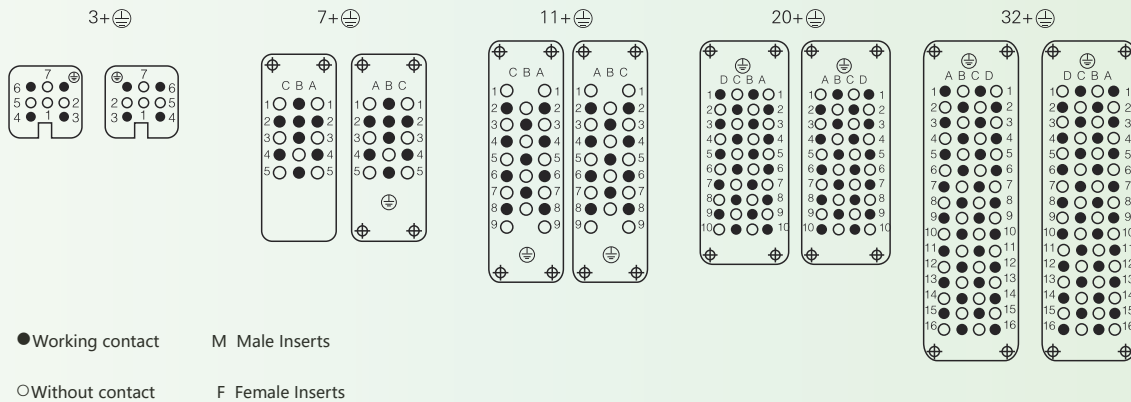


# Heavy-Duty Connector

When the HD connector is full of pins, its working voltage can reach 250V when the insulation grade is 3 (C). However, the pin distribution has been adjusted, Similarly, when the insulation grade is 3 (C), the allowable working voltage can reach 500V.

## Pin Distribution Diagram After Adjustment

10A 500V 6KV 3

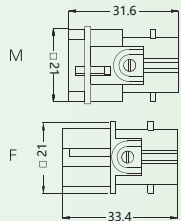
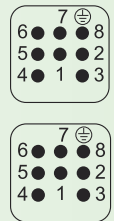


Data ,CAD,3D document please refer to: [WWW.VELLEDQ.COM](http://WWW.VELLEDQ.COM)

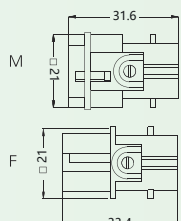
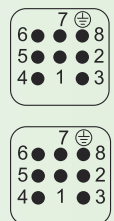
# Heavy-Duty Connector

## ● HD-007/008/015

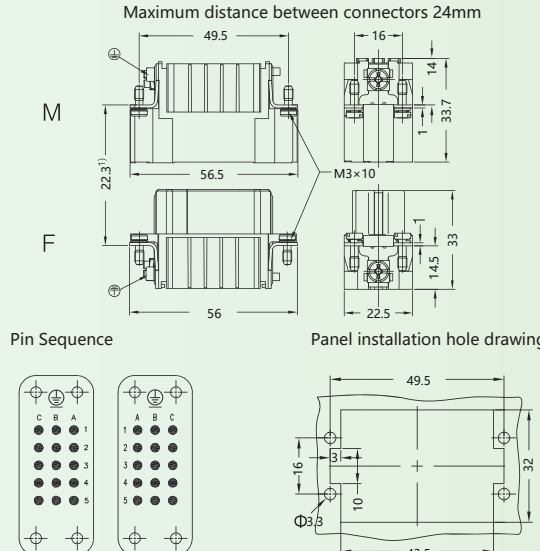
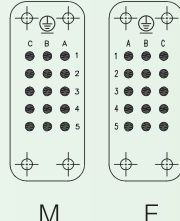
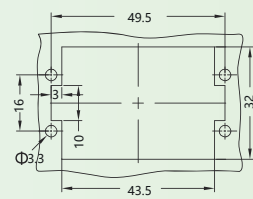
Ultra High Density Insertst 

| Product Picture                                                                                                                        | PartNumber                        | Dimension                                                                          | Pin sequencing                                                                      |
|----------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------|------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| <p>Crimping Inserts</p>  <p>Match 3A housing/hold</p> | <p>HD-007-MC</p> <p>HD-007-FC</p> |  |  |

Ultra high Density Insertst -120V/~50V 10A 8+ 

| Product drawing                                                                                                                         | Form                              | Dimension                                                                           | Pin sequencing                                                                       |
|-----------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------|-------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------|
| <p>Crimping Inserts</p>  <p>Match 3A housing/hold</p> | <p>HD-008-MC</p> <p>HD-008-FC</p> |  |  |

Ultra High Density Insertst250V 10A 15+ 

| Product Picture                                                                                                                           | PartNumber                        | Dimension                                                                                                                                                                                                                                                                                                                                                                  |
|-------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <p>Crimping Inserts</p>  <p>Match 10A housing/hold</p> | <p>HD-015-MC</p> <p>HD-015-FC</p> | <p>Maximum distance between connectors 24mm</p>  <p>Pin Sequence</p>  <p>Panel installation hole drawing</p>  |

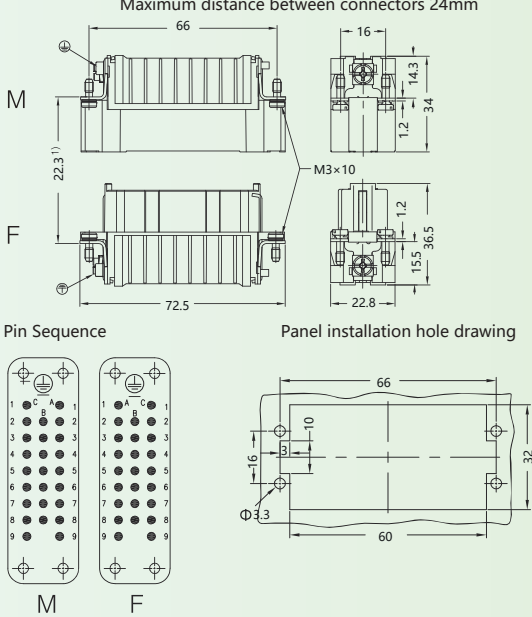


# Heavy-Duty Connector

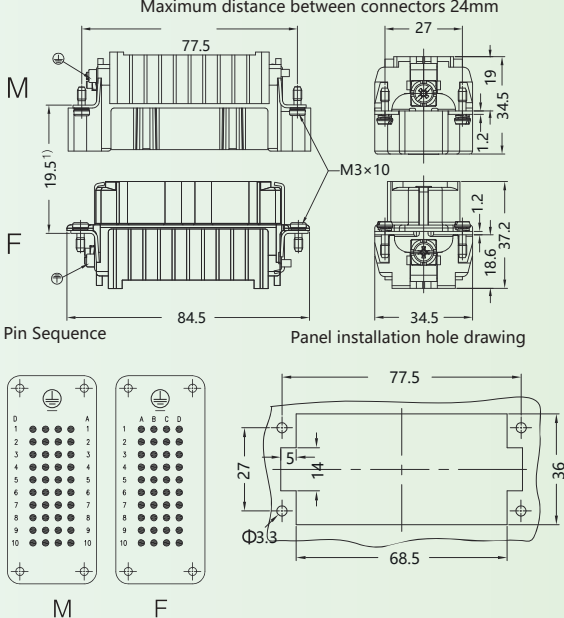


● HD-025/040

Ultra High Density Insertst250V

| Product Picture                                                                                                                                  | PartNumber                                  | Dimension                                                                                                                                                                                              |
|--------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <div><p>Crimping Inserts</p><p>Match 16A housing/hold</p></div> | <div><p>HD-025-MC</p><p>HD-025-FC</p></div> | <div><p>Maximum distance between connectors 24mm</p><p>Pin Sequence</p><p>Panel installation hole drawing</p></div> |

Ultra High Density Insertst250V 10A 40+

| Product Picture                                                                                                                                    | PartNumber                                  | Dimension                                                                                                                                                                                               |
|----------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <div><p>Crimping Inserts</p><p>Match 16B housing/hold</p></div> | <div><p>HD-040-MC</p><p>HD-040-FC</p></div> | <div><p>Maximum distance between connectors 24mm</p><p>Pin Sequence</p><p>Panel installation hole drawing</p></div> |



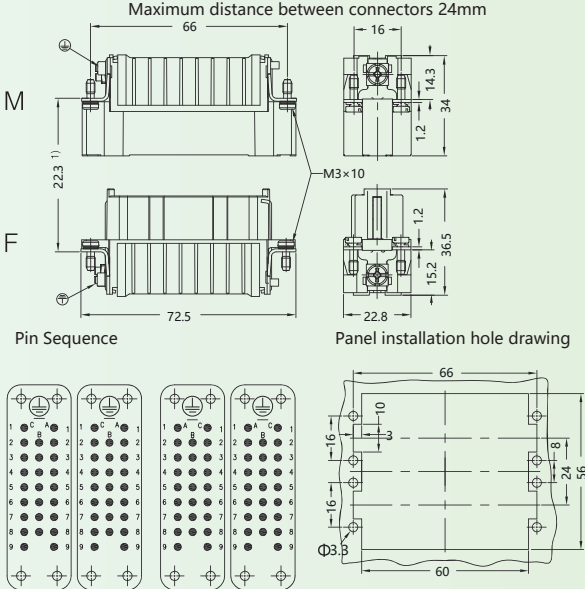
Data ,CAD,3D document please refer to: [WWW.VELLEDQ.COM](http://WWW.VELLEDQ.COM)

# Heavy-Duty Connector

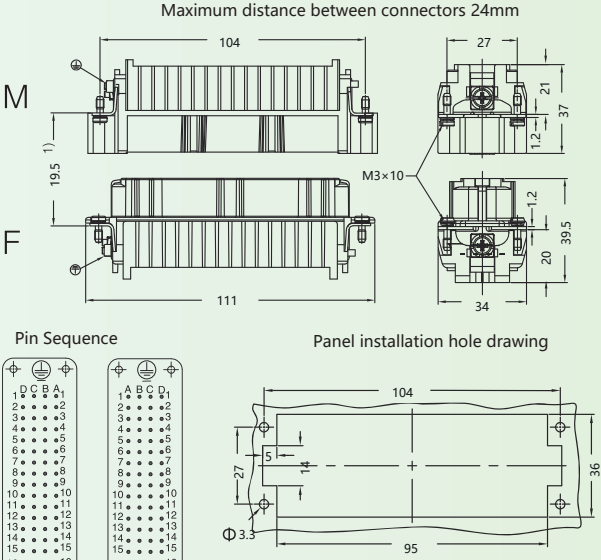


● HD-050/064

Ultra High Density Insertst250V

| Product Picture                                                                                                                                  | PartNumber                                                                                                | Dimension                                                                                                                                                                                              |
|--------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <div><p>Crimping Inserts</p><p>Match 32A housing/hold</p></div> | <div><p>HD-025-MC (1-25)</p><p>HD-025-MC (26-50)</p><p>HD-025-FC (1-25)</p><p>HD-025-FC (26-50)</p></div> | <div><p>Maximum distance between connectors 24mm</p><p>Pin Sequence</p><p>Panel installation hole drawing</p></div> |

Ultra High Density Insertst250V 10A 64+

| Product Picture                                                                                                                                    | PartNumber                                  | Dimension                                                                                                                                                                                               |
|----------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <div><p>Crimping Inserts</p><p>Match 24B housing/hold</p></div> | <div><p>HD-064-MC</p><p>HD-064-FC</p></div> | <div><p>Maximum distance between connectors 24mm</p><p>Pin Sequence</p><p>Panel installation hole drawing</p></div> |



## VELLEDQ®

Ultra High Density Insertst250V 

Ultra High Density Insertst250V 10A 128+ 

Communicate Now

# Heavy-Duty Connector

## HDD Series

### Technical Characteristics

standard

DIN EN 60 664  
DIN EN 61 984

Insert

|                                                 |                                      |
|-------------------------------------------------|--------------------------------------|
| ※Number of connector pins                       | 24,42,72,108,144(72×2),216(108×2)+PE |
| ※Rated current                                  | 16A                                  |
| ※See the right figure for current load capacity |                                      |
| ※Rated voltage                                  | 250V                                 |
| ※Rated impulse voltage                          | 4KV                                  |
| ※class of pollution                             | 3                                    |
| ※Parameters at pollution level 2                | 10A 230V/400V 4KV 2                  |
| ※According to UL/CSA rated voltage              | 600V                                 |
| ※insulation resistance                          | ≥10 <sup>10</sup> Ω                  |
| ※Material Science                               | Polycarbonate                        |
| ※Operating temperature range                    | -40°C~+125°C                         |
| ※Flame retardant grade                          | V0                                   |
| ※Pluggable times                                | ≥500                                 |

Pin

|                     |                                  |
|---------------------|----------------------------------|
| ※Material Science   | copper alloy                     |
| ※surface treatment  | gold-plated<br>plate with silver |
| ※contact resistance | ≤3mΩ                             |
| ※Wiring form        | Crimping connecton               |
| ※Crimping connecton |                                  |
| Cross Section       | 0.14-2.5mm <sup>2</sup>          |
| AWG                 | 26-14                            |

### 10A Crimping Pins

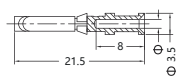
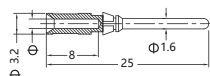


plate with silver

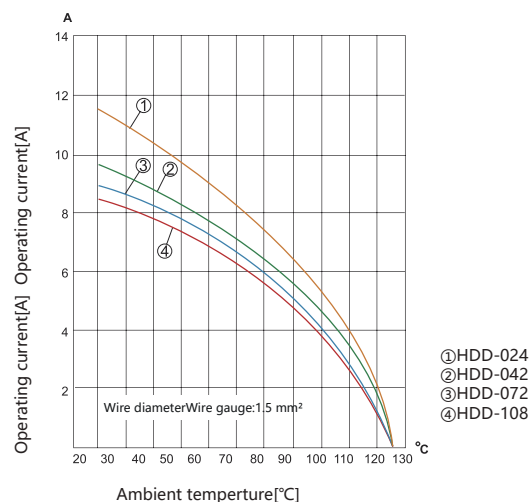
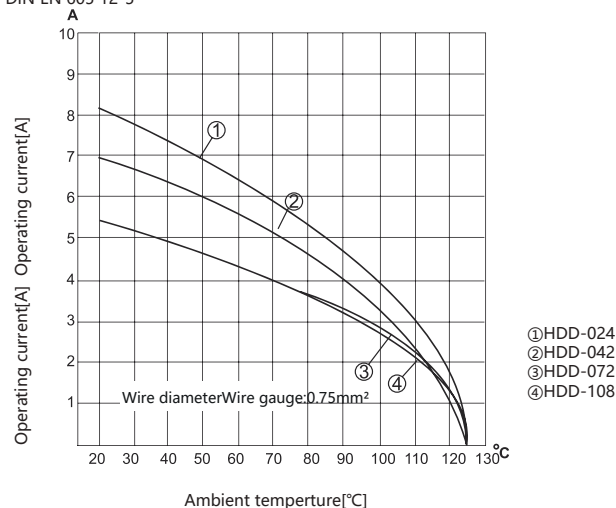
| Cross section           | Strip length | Φ   | Female | Male      |
|-------------------------|--------------|-----|--------|-----------|
| 014-0.37mm <sup>2</sup> | AWG 26-22    | 8mm | 0.9    | CDSF-0.37 |
| 0.5mm <sup>2</sup>      | AWG 20       | 8mm | 1.1    | CDSF-0.5  |
| 0.75mm <sup>2</sup>     | AWG 18       | 8mm | 1.3    | CDSF-0.75 |
| 1.0mm <sup>2</sup>      | AWG 18       | 8mm | 1.45   | CDSF-1.0  |
| 1.5mm <sup>2</sup>      | AWG 16       | 8mm | 1.75   | CDSF-1.5  |
| 2.5mm <sup>2</sup>      | AWG 14       | 8mm | 2.25   | CDSF-2.5  |

gold-plated

| Cross section           | Strip length | Φ   | Female | Male      |
|-------------------------|--------------|-----|--------|-----------|
| 014-0.37mm <sup>2</sup> | AWG 26-22    | 8mm | 0.9    | CDGF-0.37 |
| 0.5mm <sup>2</sup>      | AWG 20       | 8mm | 1.1    | CDGF-0.5  |
| 0.75mm <sup>2</sup>     | AWG 18       | 8mm | 1.3    | CDGF-0.75 |
| 1.0mm <sup>2</sup>      | AWG 18       | 8mm | 1.45   | CDGF-1.0  |
| 1.5mm <sup>2</sup>      | AWG 16       | 8mm | 1.75   | CDGF-1.5  |
| 2.5mm <sup>2</sup>      | AWG 14       | 8mm | 2.25   | CDGF-2.5  |

### Current Load Capacity

The limitation of current load capacity mainly comes from the test and control process of the maximum temperature that the connector including the contact pin can withstand according to DIN EN 605 12-5



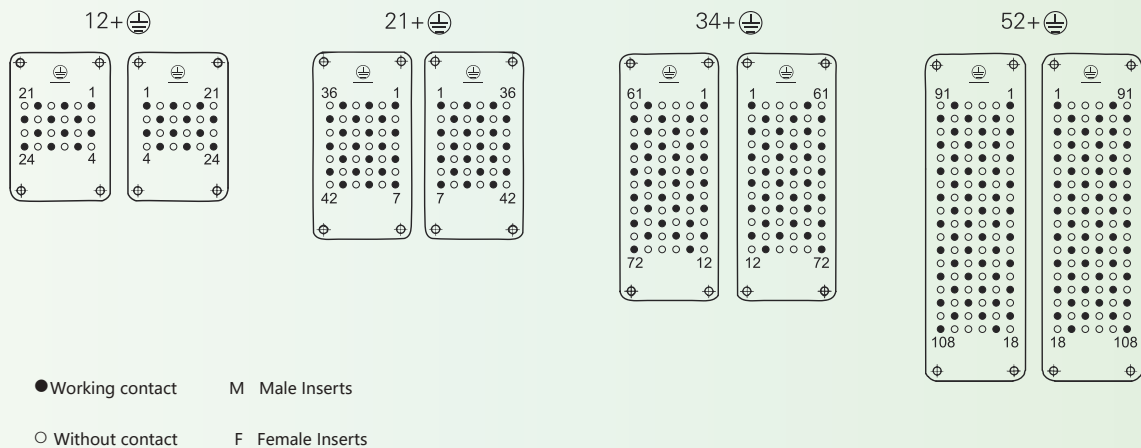
Data ,CAD,3D document please refer to: [WWW.VELLEDQ.COM](http://WWW.VELLEDQ.COM)

# Heavy-Duty Connector

When the HD connector is full of pins, its working voltage can reach 250V when the insulation grade is 3 (C). However, the pin distribution has been adjusted, Similarly, when the insulation grade is 3 (C), the allowable working voltage can reach 500V

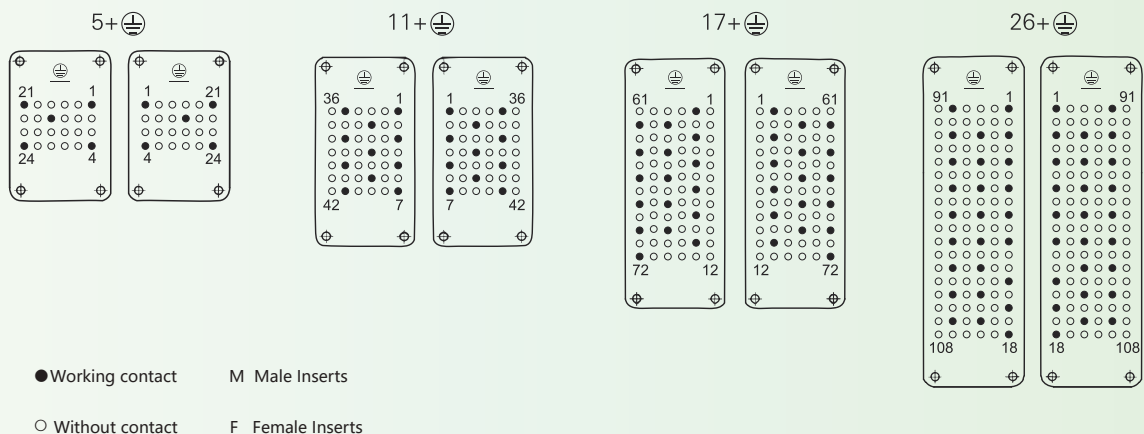
## Pin Distribution Diagram After Adjustment-400V

10A 400V 6KV 3



## Pin Distribution Diagram After Adjustment-500V

10A 500V 6KV 3



Data ,CAD,3D document please refer to: [WWW.VELLEDQ.COM](http://WWW.VELLEDQ.COM)



# Heavy-Duty Connector



● HDD-072/108

Ultra High Density Insertst 250V

| Product Picture                                                           | PartNumber                                  | Dimension                                                                                                                                                         |
|---------------------------------------------------------------------------|---------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <div>Crimping Inserts</div> <div></div> <div>Match 16B housing/hold</div> | <div>HDD-072-MC</div> <div>HDD-072-FC</div> | <div>The maximum distance between connectors is 21mm</div> <div></div> <div>Pin Sequence</div> <div></div> <div>Panel installation hole drawing</div> <div></div> |

Ultra High Density Insertst 250V 10A 108+

| Product Picture                                                           | PartNumber                                  | Dimension                                                                                                                                                  |
|---------------------------------------------------------------------------|---------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <div>Crimping Inserts</div> <div></div> <div>Match 24B housing/hold</div> | <div>HDD-108-MC</div> <div>HDD-108-FC</div> | <div>Maximum distance between connectors 24mm</div> <div></div> <div>Pin Sequence</div> <div></div> <div>Panel installation hole drawing</div> <div></div> |



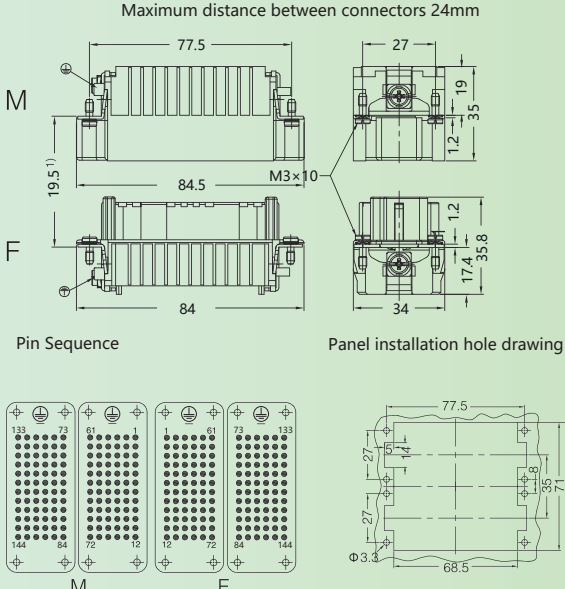
Data ,CAD,3D document please refer to: [WWW.VELLEDQ.COM](http://WWW.VELLEDQ.COM)

# Heavy-Duty Connector

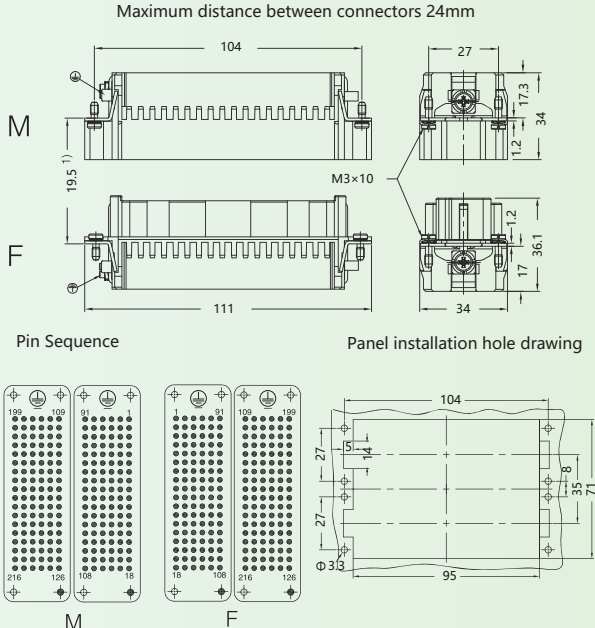


● HDD-144/216

Ultra High Density Insertst 250V

| Product Picture                                                                                                                         | PartNumber                                                                                             | Dimension                                                                                                                                                                                      |
|-----------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <p>Crimping Inserts</p>  <p>Match 32B housing/hold</p> | <p>HDD-072-MC(1-72)</p> <p>HDD-072-MC(73-144)</p><br><p>HDD-072-FC(1-72)</p> <p>HDD-072-FC(73-144)</p> | <p>Maximum distance between connectors 24mm</p>  <p>Pin Sequence</p> <p>Panel installation hole drawing</p> |

Ultra High Density Insertst 250V 10A 216+

| Product Picture                                                                                                                           | PartNumber                                                                                                 | Dimension                                                                                                                                                                                       |
|-------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <p>Crimping Inserts</p>  <p>Match 48B housing/hold</p> | <p>HDD-108-MC(1-108)</p> <p>HDD-108-MC(109-216)</p><br><p>HDD-108-FC(1-108)</p> <p>HDD-108-FC(109-216)</p> | <p>Maximum distance between connectors 24mm</p>  <p>Pin Sequence</p> <p>Panel installation hole drawing</p> |



# Heavy-Duty Connector

## ● HSB Series

### Technical Characteristics

#### standard

DIN EN 60 664  
DIN EN 61 984

#### Insert

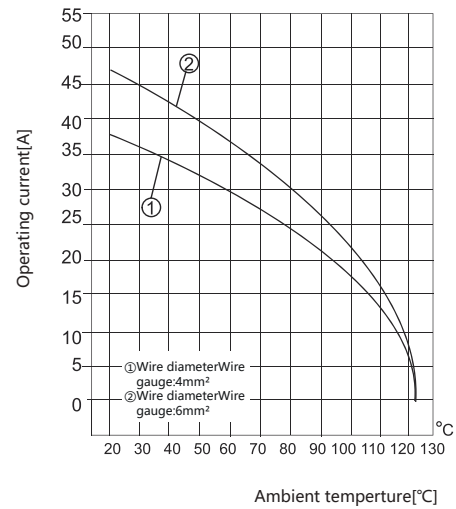
|                                                 |                      |
|-------------------------------------------------|----------------------|
| ※Number of connector pins                       | 6,12+PE              |
| ※Rated current                                  | 35A                  |
| ※See the right figure for current load capacity |                      |
| ※Rated voltage                                  | 400V                 |
| ※Rated voltage between phases                   | 690V                 |
| ※Rated impulse voltage                          | 6KV                  |
| ※class of pollution                             | 3                    |
| or                                              | 35A 500 6KV3         |
| ※According to UL/CSA rated voltage              | 600V                 |
| ※insulation resistance                          | $\geq 10^{10}\Omega$ |
| ※Material Science                               | Polycarbonate        |
| ※Operating temperature range                    | -40°C~+125°C         |
| ※Flame retardant grade                          | V0                   |
| ※Pluggable times                                | $\geq 500$           |

#### Pin

|                     |                        |
|---------------------|------------------------|
| ※Material Science   | copper alloy           |
| ※surface treatment  | plate with silver      |
| ※contact resistance | $\leq 1\text{m}\Omega$ |
| ※Wiring form        | Screw connection       |
| ※Screw connection   |                        |
| Cross Section       | 6mm <sup>2</sup>       |
| AWG                 | 10                     |
| Tightening torque   | 1.2Nm                  |

### Current Load Capacity

The limitation of current load capacity mainly comes from the test and control process of the maximum temperature that the connector including the contact pin can withstand according to DIN EN 605 12-5



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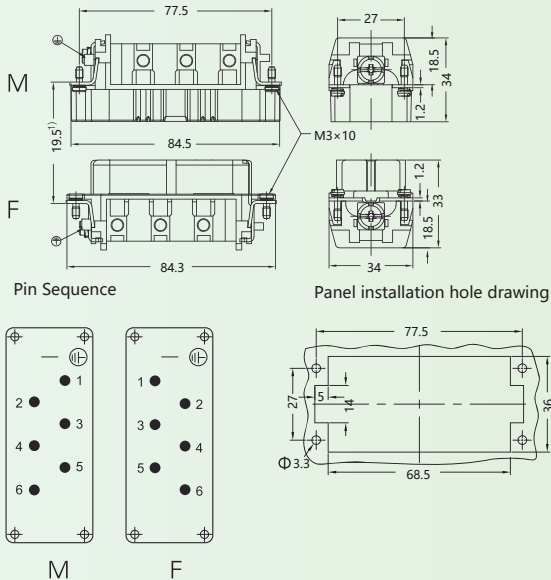
Data ,CAD,3D document please refer to: [WWW.VELLEDQ.COM](http://WWW.VELLEDQ.COM)

# Heavy-Duty Connector

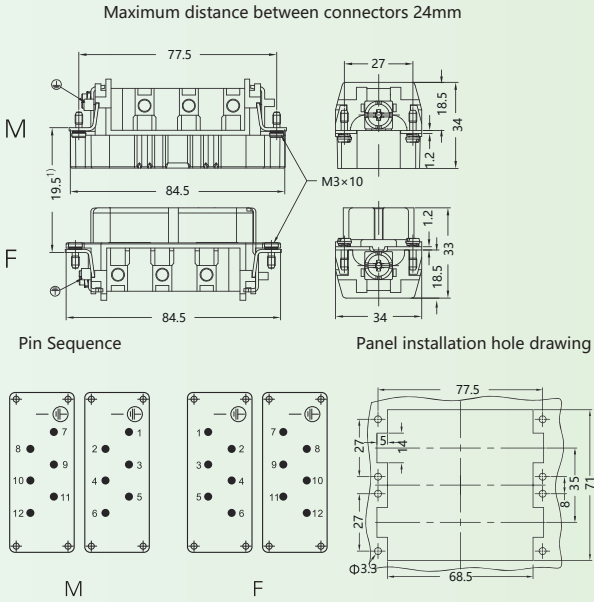


● HSB-006/012

High Current Type Insertst

| Product Picture                                                                                                                         | PartNumber                        | Dimension                                                                                                                                  |
|-----------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------|
| <p>Screw connection</p>  <p>Match 16B housing/hold</p> | <p>HSB-006-M</p> <p>HSB-006-F</p> | <p>The maximum distance between connectors is 21mm</p>  |

High Current Type Insertst400/690V 35A 12+

| Product Picture                                                                                                                           | PartNumber                        | Dimension                                                                                                                            |
|-------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------|--------------------------------------------------------------------------------------------------------------------------------------|
| <p>Screw connection</p>  <p>Match 32B housing/hold</p> | <p>HSB-012-M</p> <p>HSB-012-F</p> | <p>Maximum distance between connectors 24mm</p>  |



Data ,CAD,3D document please refer to: [WWW.VELLEDQ.COM](http://WWW.VELLEDQ.COM)

# Heavy-Duty Connector

## ● HK-008/24

### Technical Characteristics

#### standard

DIN EN 60 664  
DIN EN 61 984

#### Insert

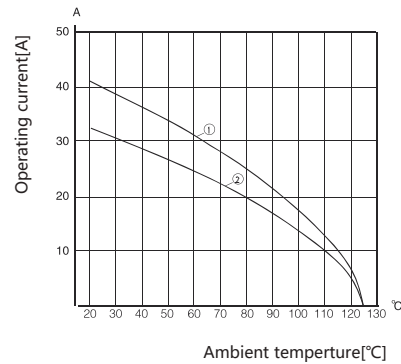
|                                      |                             |
|--------------------------------------|-----------------------------|
| ※Number of connector pins            | 8/24+PE                     |
| ※Rated voltage according to EN61 984 |                             |
| ※Power area                          |                             |
| Rated current                        | 16A                         |
| Rated voltage                        | 230/400V                    |
| Rated impulse voltage                | 4KV                         |
| Pollution degree                     | 3                           |
| Parameters at pollution level 2      | 10A 250V 4KV 2              |
| ※Signal area                         |                             |
| Rated current                        | 10A                         |
| Rated voltage                        | 160V                        |
| Rated impulse voltage                | 2.5KV                       |
| Pollution degree                     | 3                           |
| ※According to UL/CSA rated voltage   | 600/300V                    |
| ※Insulation resistance               | $\geq 10^{10}\Omega$        |
| ※Material Science                    | polycarbonate Polycarbonate |
| ※Operating temperature range         | -40°C~+125°C                |
| ※Flame retardant grade               | V0                          |
| ※Pluggable times                     | $\geq 500$                  |

#### Pin

|                           |                                  |
|---------------------------|----------------------------------|
| ※Strong electrocupuncture |                                  |
| Material Science          | copper alloy                     |
| surface treatment         | gold-plated<br>plate with silver |
| contact resistance        | $\leq 1m\Omega$                  |
| Crimping Connection       |                                  |
| Cross Section             | 0.5-4.0mm <sup>2</sup>           |
| AWG                       | 20-12                            |
| ※Signal pin               |                                  |
| Material Science          | copper alloy                     |
| surface treatment         | gold-plated<br>plate with silver |
| contact resistance        | $\leq 3m\Omega$                  |
| Crimping Connection       |                                  |
| Cross Section             | 0.15-2.5mm <sup>2</sup>          |
| AWG                       | 25-14                            |

### Current Load Capacity

The limitation of current load capacity mainly comes from the test and control process of the maximum temperature that the connector including the contact pin can withstand according to DIN EN 605 12-5



- ① Core cross-section Wire gauge: 4.0mm<sup>2</sup>  
② Core cross-section Wire gauge: 2.5mm<sup>2</sup>



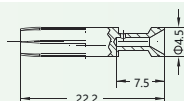
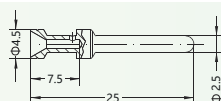
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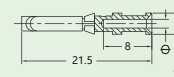
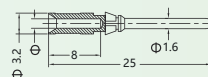
## VELLEDQ®

Combined Insertst 400/160V 16/10A 

## 16A Crimping Pins



## 10A Crimping Pins



| Cross section           |           | Strip length | Female    | Male      |
|-------------------------|-----------|--------------|-----------|-----------|
| 014-0.37mm <sup>2</sup> | AWG 26-22 | 7.5mm        | CESF-0.37 | CESM-0.37 |
| 0.5mm <sup>2</sup>      | AWG 20    | 7.5mm        | CESF-0.5  | CESM-0.5  |
| 0.75mm <sup>2</sup>     | AWG 18    | 7.5mm        | CESF-0.75 | CESM-0.75 |
| 1.0mm <sup>2</sup>      | AWG 18    | 7.5mm        | CESF-1.0  | CESM-1.0  |
| 1.5mm <sup>2</sup>      | AWG 16    | 7.5mm        | CESF-1.5  | CESM-1.5  |
| 2.5mm <sup>2</sup>      | AWG 14    | 7.5mm        | CESF-2.5  | CESM-2.5  |
| 3.0mm <sup>2</sup>      | AWG 12    | 7.5mm        | CESF-3.0  | CESM-3.0  |
| 4.0mm <sup>2</sup>      | AWG 12    | 7.5mm        | CESF-4.0  | CESM-4.0  |

| Cross section           |           | Strip length | Φ    | Female    | Male      |
|-------------------------|-----------|--------------|------|-----------|-----------|
| 014-0.37mm <sup>2</sup> | AWG 26-22 | 8mm          | 0.9  | CDSF-0.37 | CDSM-0.37 |
| 0.5mm <sup>2</sup>      | AWG 20    | 8mm          | 1.1  | CDSF-0.5  | CDSM-0.5  |
| 0.75mm <sup>2</sup>     | AWG 18    | 8mm          | 1.3  | CDSF-0.75 | CDSM-0.75 |
| 1.0mm <sup>2</sup>      | AWG 18    | 8mm          | 1.45 | CDSF-1.0  | CDSM-1.0  |
| 1.5mm <sup>2</sup>      | AWG 16    | 8mm          | 1.75 | CDSF-1.5  | CDSM-1.5  |
| 2.5mm <sup>2</sup>      | AWG 14    | 8mm          | 2.25 | CDSF-2.5  | CDSM-2.5  |

| Cross section           |           | Strip length | Female    | Male      |
|-------------------------|-----------|--------------|-----------|-----------|
| 014-0.37mm <sup>2</sup> | AWG 26-22 | 7.5mm        | CEGF-0.37 | CEGM-0.37 |
| 0.5mm <sup>2</sup>      | AWG 20    | 7.5mm        | CEGF-0.5  | CEGM-0.5  |
| 0.75mm <sup>2</sup>     | AWG 18    | 7.5mm        | CEGF-0.75 | CEGM-0.75 |
| 1.0mm <sup>2</sup>      | AWG 18    | 7.5mm        | CEGF-1.0  | CEGM-1.0  |
| 1.5mm <sup>2</sup>      | AWG 16    | 7.5mm        | CEGF-1.5  | CEGM-1.5  |
| 2.5mm <sup>2</sup>      | AWG 14    | 7.5mm        | CEGF-2.5  | CEGM-2.5  |
| 3.0mm <sup>2</sup>      | AWG 12    | 7.5mm        | CEGF-3.0  | CEGM-3.0  |
| 4.0mm <sup>2</sup>      | AWG 12    | 7.5mm        | CEGF-4.0  | CEGM-4.0  |

| Cross section           |           | Strip length | $\Phi$ | Female    | Male      |
|-------------------------|-----------|--------------|--------|-----------|-----------|
| 014-0.37mm <sup>2</sup> | AWG 26-22 | 8mm          | 0.9    | CDGF-0.37 | CDGM-0.37 |
| 0.5mm <sup>2</sup>      | AWG 20    | 8mm          | 1.1    | CDGF-0.5  | CDGM-0.5  |
| 0.75mm <sup>2</sup>     | AWG 18    | 8mm          | 1.3    | CDGF-0.75 | CDGM-0.75 |
| 1.0mm <sup>2</sup>      | AWG 18    | 8mm          | 1.45   | CDGF-1.0  | CDGM-1.0  |
| 1.5mm <sup>2</sup>      | AWG 16    | 8mm          | 1.75   | CDGF-1.5  | CDGM-1.5  |
| 2.5mm <sup>2</sup>      | AWG 14    | 8mm          | 2.25   | CDGF-2.5  | CDGM-2.5  |

# Heavy-Duty Connector

## ● HK-004/4

### Technical Characteristics

#### standard

DIN EN 60 664  
DIN EN 61 984

#### Insert

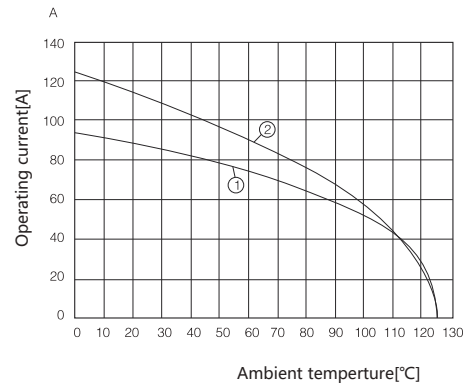
|                                      |                             |
|--------------------------------------|-----------------------------|
| ※Number of connector pins            | 4/4+PE                      |
| ※Rated voltage according to EN61 984 |                             |
| ※Power area                          |                             |
| Rated current                        | 70A                         |
| Rated voltage                        | 690V                        |
| Rated impulse voltage                | 8KV                         |
| Pollution degree                     | 3                           |
| ※Signal area                         |                             |
| Rated current                        | 16A                         |
| Rated voltage                        | 250V                        |
| Rated impulse voltage                | 4KV                         |
| Pollution degree                     | 3                           |
| ※According to UL/CSA rated voltage   | 600/230V                    |
| ※insulation resistance               | $\geq 10^{10}\Omega$        |
| ※Material Science                    | polycarbonate Polycarbonate |
| ※Operating temperature range         | -40°C~+125°C                |
| ※Flame retardant grade               | V0                          |
| ※Pluggable times                     | $\geq 500$                  |

#### Pin

|                            |                       |
|----------------------------|-----------------------|
| ※Strong electroacupuncture |                       |
| Material Science           | copper alloy          |
| surface treatment          | plate with silver     |
| contact resistance         | $\leq 0.5m\Omega$     |
| Crimping Connecton         |                       |
| Cross Section              | 10-25mm <sup>2</sup>  |
| AWG                        | 8-4                   |
| Maximum cable diameter     | 11mm                  |
| Strip length               | 15.5mm                |
| ※Signal pin                |                       |
| Material Science           | copper alloy          |
| surface treatment          | plate with silver     |
| contact resistance         | $\leq 1m\Omega$       |
| Crimping Connecton         |                       |
| Cross Section              | 0.14-4mm <sup>2</sup> |
| AWG                        | 26-14                 |

### Current Load Capacity

The limitation of current load capacity mainly comes from the test and control process of the maximum temperature that the connector including the contact pin can withstand according to DIN EN 605 12-5



- ①Core cross-section Wire gauge: 16mm<sup>2</sup>  
②Core cross-section Wire gauge: 25mm<sup>2</sup>



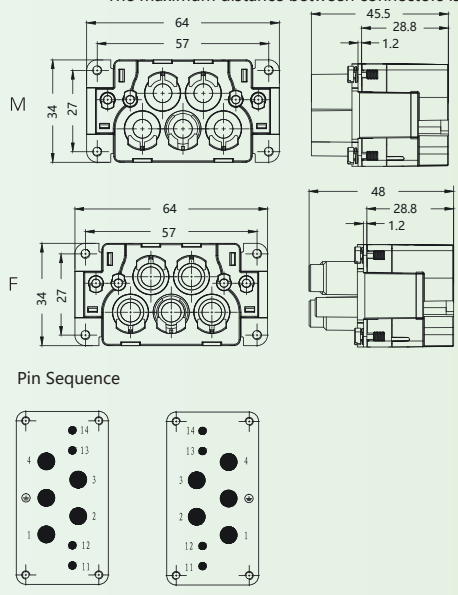
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# Heavy-Duty Connector

## ● HK-004/4

Combined Inserts 690/250V 70/16A 

| Product Picture                                                                                                                         | PartNumber                            | Dimension                                                                                                                                  |
|-----------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------|
| <p>Crimping Inserts</p>  <p>Match 10B housing/hold</p> | <p>HK-004/4-MC</p> <p>HK-004/4-FC</p> | <p>The maximum distance between connectors is 21mm</p>  |

## 16A Crimping Pins



plate with silver

| Cross section           |           | Strip length | Female    | Male      |
|-------------------------|-----------|--------------|-----------|-----------|
| 014-0.37mm <sup>2</sup> | AWG 26-22 | 7.5mm        | CESF-0.37 | CESM-0.37 |
| 0.5mm <sup>2</sup>      | AWG 20    | 7.5mm        | CESF-0.5  | CESM-0.5  |
| 0.75mm <sup>2</sup>     | AWG 18    | 7.5mm        | CESF-0.75 | CESM-0.75 |
| 1.0mm <sup>2</sup>      | AWG 18    | 7.5mm        | CESF-1.0  | CESM-1.0  |
| 1.5mm <sup>2</sup>      | AWG 16    | 7.5mm        | CESF-1.5  | CESM-1.5  |
| 2.5mm <sup>2</sup>      | AWG 14    | 7.5mm        | CESF-2.5  | CESM-2.5  |
| 3.0mm <sup>2</sup>      | AWG 12    | 7.5mm        | CESF-3.0  | CESM-3.0  |
| 4.0mm <sup>2</sup>      | AWG 12    | 7.5mm        | CESF-4.0  | CESM-4.0  |

gold-plated

| Cross section           |           | Strip length | Female    | Male      |
|-------------------------|-----------|--------------|-----------|-----------|
| 014-0.37mm <sup>2</sup> | AWG 26-22 | 7.5mm        | CEGF-0.37 | CEGM-0.37 |
| 0.5mm <sup>2</sup>      | AWG 20    | 7.5mm        | CEGF-0.5  | CEGM-0.5  |
| 0.75mm <sup>2</sup>     | AWG 18    | 7.5mm        | CEGF-0.75 | CEGM-0.75 |
| 1.0mm <sup>2</sup>      | AWG 18    | 7.5mm        | CEGF-1.0  | CEGM-1.0  |
| 1.5mm <sup>2</sup>      | AWG 16    | 7.5mm        | CEGF-1.5  | CEGM-1.5  |
| 2.5mm <sup>2</sup>      | AWG 14    | 7.5mm        | CEGF-2.5  | CEGM-2.5  |
| 3.0mm <sup>2</sup>      | AWG 12    | 7.5mm        | CEGF-3.0  | CEGM-3.0  |
| 4.0mm <sup>2</sup>      | AWG 12    | 7.5mm        | CEGF-4.0  | CEGM-4.0  |

## 70A Crimping Pins

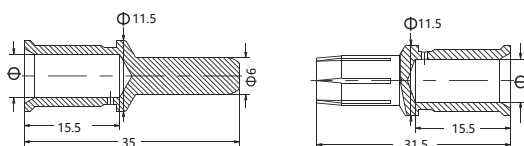


plate with silver

| Cross section     | Strip length | Φ   | Female    | Male      |
|-------------------|--------------|-----|-----------|-----------|
| 10mm <sup>2</sup> | 15.5mm       | 4.3 | CKSF70-10 | CKSM70-10 |
| 16mm <sup>2</sup> | 15.5mm       | 5.5 | CKSF70-16 | CKSM70-16 |
| 25mm <sup>2</sup> | 15.5mm       | 7   | CKSF70-25 | CKSM70-25 |

Cable strands according to IEC 60 228-5  
For stranded wire according to IEC 60 228 Class 5



# Heavy-Duty Connector

## ● HK-004/0,004/2

### Technical Characteristics

standard

DIN EN 60 664  
DIN EN 61 984

#### Insert

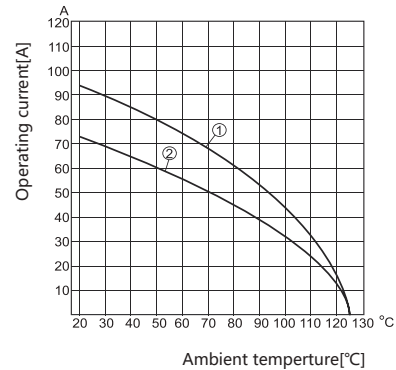
|                                      |                             |
|--------------------------------------|-----------------------------|
| ※Number of connector pins            | 4/0,4/2+PE                  |
| ※Rated voltage according to EN61 984 |                             |
| ※Power area                          |                             |
| Rated current                        | 80A                         |
| Rated voltage                        | 830V                        |
| Rated impulse voltage                | 8KV                         |
| Pollution degree                     | 3                           |
| Parameters at pollution level 2      | 80A 1000V 8KV 2             |
| ※Signal area                         |                             |
| Rated current                        | 16A                         |
| Rated voltage                        | 400V                        |
| Rated impulse voltage                | 6KV                         |
| Pollution degree                     | 3                           |
| Parameters at pollution level 2      | 16A 400/690V 6KV 2          |
| ※According to UL/CSA rated voltage   | 600/230V                    |
| ※Insulation resistance               | $\geq 10^9 \Omega$          |
| ※Material Science                    | polycarbonate Polycarbonate |
| ※Operating temperature range         | -40°C ~ +125°C              |
| ※Flame retardant grade               | V0                          |
| ※Pluggable times                     | $\geq 500$                  |

#### Pin

|                           |                        |
|---------------------------|------------------------|
| ※Strong electrocupuncture |                        |
| Material Science          | copper alloy           |
| surface treatment         | plate with silver      |
| contact resistance        | $\leq 0.3m\Omega$      |
| Screw connection          |                        |
| Cross Section             | 1.5-25mm <sup>2</sup>  |
| AWG                       | 16-6                   |
| Tightening torque         |                        |
| mm <sup>2</sup>           | 1.5 2.5 4 6 10 16      |
| Nm                        | 1.2 2 3 3 3 3          |
| Strip length              | 14mm                   |
| ※Signal pin               |                        |
| Material Science          | copper alloy           |
| surface treatment         | plate with silver      |
| contact resistance        | $\leq 1m\Omega$        |
| Screw connection          |                        |
| Cross Section             | 0.5-2.5mm <sup>2</sup> |
| AWG                       | 20-14                  |
| Tightening torque         | 0.5Nm                  |
| Strip length              | 7.5mm                  |

### Current Load Capacity

The limitation of current load capacity mainly comes from the test and control process of the maximum temperature that the connector including the contact pin can withstand according to DIN EN 605 12-5



- ① Core cross-section Wire gauge: 16mm<sup>2</sup>  
② Core cross-section Wire gauge: 10mm<sup>2</sup>



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Data ,CAD,3D document please refer to: [WWW.VELLEDQ.COM](http://WWW.VELLEDQ.COM)

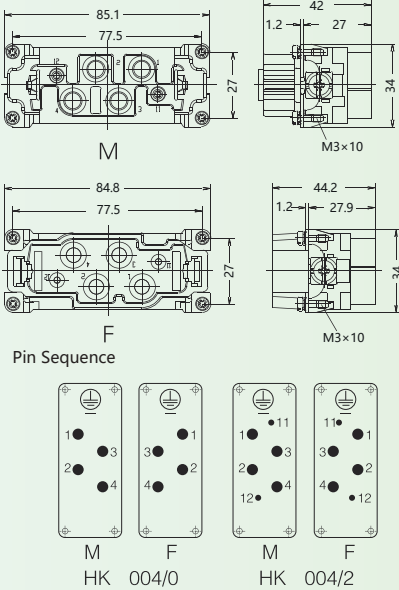
# Heavy-Duty Connector



● HK-004/0,004/2,004/8

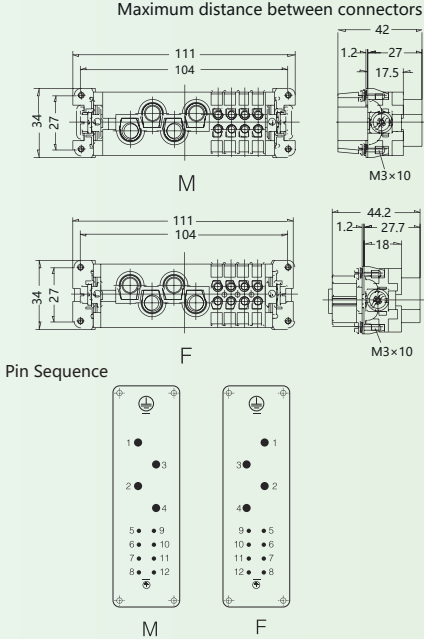
Combined Inserts 830/400V 80/16A



| Product Picture                                                                                                                       | PartNumber                                                              | Dimension                                                                                                                                  |
|---------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------|
| <p>Screw crimping</p>  <p>Match 16B housing/hold</p> | <p>HK-004/0-M</p> <p>HK-004/0-F</p> <p>HK-004/2-M</p> <p>HK-004/2-F</p> | <p>The maximum distance between connectors is 21mm</p>  |

High Current Type Inserts400/400V 80/16A 4/8+



| Product Picture                                                                                                                           | PartNumber                          | Dimension                                                                                                                            |
|-------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------|
| <p>Screw connection</p>  <p>Match 24B housing/hold</p> | <p>HK-004/8-M</p> <p>HK-004/8-F</p> | <p>Maximum distance between connectors 24mm</p>  |



# Heavy-Duty Connector

## ● HWK-006/6

### Technical Characteristics

standard

DIN EN 60 664  
DIN EN 61 984

Insert

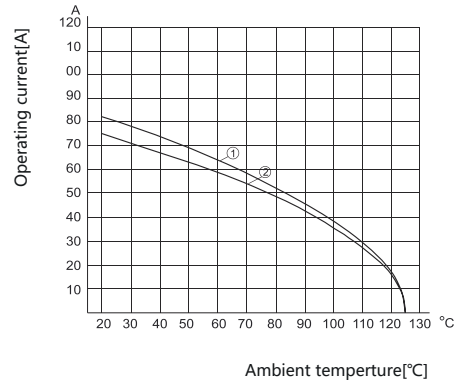
|                                      |                             |
|--------------------------------------|-----------------------------|
| ※Number of connector pins            | 6/6+PE                      |
| ※Rated voltage according to EN61 984 |                             |
| ※Power area                          |                             |
| Rated current                        | 40A                         |
| Rated voltage                        | 400/690V                    |
| Rated impulse voltage                | 6KV                         |
| Pollution degree                     | 3                           |
| ※Signal area                         |                             |
| Rated current                        | 16A                         |
| Rated voltage                        | 230/400V                    |
| Rated impulse voltage                | 4KV                         |
| Pollution degree                     | 600/600V                    |
| ※According to UL/CSA rated voltage   |                             |
| ※insulation resistance               | $\geq 10^{10}\Omega$        |
| ※Material Science                    | polycarbonate Polycarbonate |
| ※Operating temperature range         | -40°C~+125°C                |
| ※Flame retardant grade               | V0                          |
| ※Pluggable times                     | $\geq 500$                  |

Pin

|                            |                      |
|----------------------------|----------------------|
| ※Strong electroacupuncture |                      |
| Material Science           | copper alloy         |
| surface treatment          | plate with silver    |
| contact resistance         | $\leq 3m\Omega$      |
| Screw connection           |                      |
| Cross Section              | 4-10mm <sup>2</sup>  |
| AWG                        | 12-8                 |
| Tightening torque          |                      |
| mm <sup>2</sup>            | 1.5 2.5 4 6 10 16    |
| Nm                         | 1.2 2 3 3 3 3        |
| ※Signal pin                |                      |
| Material Science           | copper alloy         |
| surface treatment          | plate with silver    |
| contact resistance         | $\leq 1m\Omega$      |
| Screw connection           |                      |
| Cross Section              | 1-2.5mm <sup>2</sup> |
| AWG                        | 18-4                 |
| Tightening torque          | 0.5Nm                |

### Current Load Capacity

The limitation of current load capacity mainly comes from the test and control process of the maximum temperature that the connector including the contact pin can withstand according to DIN EN 605 12-5



- ① Core cross-section Wire gauge: 16mm<sup>2</sup>  
② Core cross-section Wire gauge: 10mm<sup>2</sup>



Data ,CAD,3D document please refer to: [WWW.VELLEDQ.COM](http://WWW.VELLEDQ.COM)

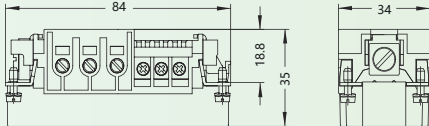
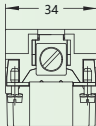
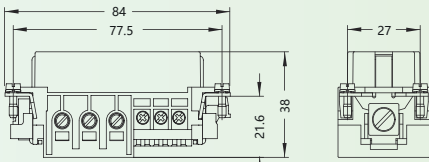
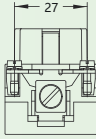
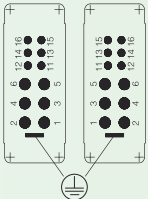
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# Heavy-Duty Connector

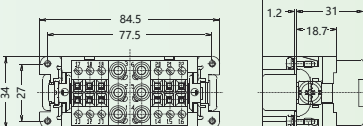
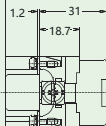
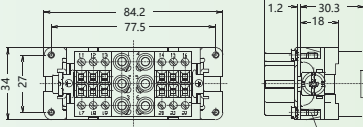
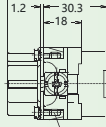
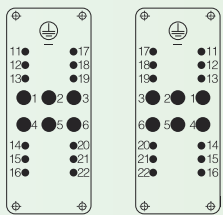


● HWK-006/6,006/12

Combined Inserts 690/400V 40/16A

| Product Picture                                                                                                                                          | PartNumber  | Dimension                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
|----------------------------------------------------------------------------------------------------------------------------------------------------------|-------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <div>Screw crimping</div> <div></div> <div>Match 16B housing/hold</div> | HWK-006/6-M | <div>The maximum distance between connectors is 21mm</div> <div></div> <div></div> <div>M</div> <div></div> <div></div> <div>F</div> <div>Pin Sequence</div> <div></div> |
| <div>Match 16B housing/hold</div>                                                                                                                        | HWK-006/6-F |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |

High Current Type Inserts690/400V 40/10A 6/12+ 

| Product Picture                                                                                                                                              | PartNumber                                                                  | Dimension                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <div>Screw connection</div> <div></div> <div>Match 16B housing/hold</div> | HK-006.1/12-M(2.5-8mm <sup>2</sup> )<br>HK-006.2/12-M(6-10mm <sup>2</sup> ) | <div>The maximum distance between connectors is 21mm</div> <div></div> <div></div> <div>M</div> <div></div> <div></div> <div>F</div> <div>Pin Sequence</div> <div></div> |
| <div>Match 16B housing/hold</div>                                                                                                                            | HK-006.1/12-F(2.5-8mm <sup>2</sup> )<br>HK-006.2/12-F(6-10mm <sup>2</sup> ) |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |



# Heavy-Duty Connector

## ● HK-006/36

### Technical Characteristics

standard

DIN EN 60 664  
DIN EN 61 984

#### Insert

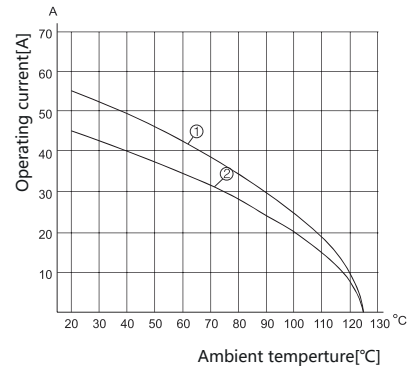
|                                      |                             |
|--------------------------------------|-----------------------------|
| ※Number of connector pins            | 6/36+PE                     |
| ※Rated voltage according to EN61 984 |                             |
| ※Power area                          |                             |
| Rated current                        | 40A                         |
| Rated voltage                        | 690V                        |
| Rated impulse voltage                | 8kV                         |
| Pollution degree                     | 3                           |
| ※Signal area                         |                             |
| Rated current                        | 10A                         |
| Rated voltage                        | 160V                        |
| Rated impulse voltage                | 2.5kV                       |
| Pollution degree                     | 3                           |
| Parameters at pollution level 2      | 10A 250V 4kV 2              |
| ※According to UL/CSA rated voltage   | 600/300V                    |
| ※insulation resistance               | $\geq 10^{10} \Omega$       |
| ※Material Science                    | polycarbonate Polycarbonate |
| ※Operating temperature range         | -40°C ~ +125°C              |
| ※Flame retardant grade               | V0                          |
| ※Pluggable times                     | $\geq 500$                  |

#### Pin

|                             |                                  |
|-----------------------------|----------------------------------|
| ※Strong electrocupuncture   |                                  |
| Material Science            | copper alloy                     |
| surface treatment           | plate with silver<br>gold-plated |
| contact resistance          | $\leq 0.3m\Omega$                |
| Crimping Connecton          |                                  |
| Cross Cection               | 1.5-6mm <sup>2</sup>             |
| AWG                         | 16-10                            |
| Maximum insulation diameter | 5mm                              |
| ※Signal pin                 |                                  |
| Material Science            | copper alloy                     |
| surface treatment           | plate with silver<br>gold-plated |
| contact resistance          | $\leq 3m\Omega$                  |
| Crimping Connecton          |                                  |
| Cross Section               | 0.14-2.5mm <sup>2</sup>          |
| AWG                         | 26-14                            |

### Current Load Capacity

The limitation of current load capacity mainly comes from the test and control process of the maximum temperature that the connector including the contact pin can withstand according to DIN EN 605 12-5



- ① Core cross-section Wire gauge: 6.0mm<sup>2</sup>  
② Core cross-section Wire gauge: 4.0mm<sup>2</sup>



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Data ,CAD,3D document please refer to: [WWW.VELLEDQ.COM](http://WWW.VELLEDQ.COM)

## VELLEDQ®

Combined Inserts 690/400V 40/10A 

## 10A Crimping Pins

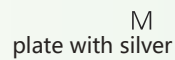


plate with silver

gold-plated

gold-plated

| Cross section           |           | Strip length | Φ    | Female    | Male      |
|-------------------------|-----------|--------------|------|-----------|-----------|
| 014-0.37mm <sup>2</sup> | AWG 26-22 | 8mm          | 0.9  | CDGF-0.37 | CDGM-0.37 |
| 0.5mm <sup>2</sup>      | AWG 20    | 8mm          | 1.1  | CDGF-0.5  | CDGM-0.5  |
| 0.75mm <sup>2</sup>     | AWG 18    | 8mm          | 1.3  | CDGF-0.75 | CDGM-0.75 |
| 1.0mm <sup>2</sup>      | AWG 18    | 8mm          | 1.45 | CDGF-1.0  | CDGM-1.0  |
| 1.5mm <sup>2</sup>      | AWG 16    | 8mm          | 1.75 | CDGF-1.5  | CDGM-1.5  |
| 2.5mm <sup>2</sup>      | AWG 14    | 8mm          | 2.25 | CDGF-2.5  | CDGM-2.5  |

# Heavy-Duty Connector

## ● HK-012/2

### Technical Characteristics

#### standard

DIN EN 60 664  
DIN EN 61 984

#### Insert

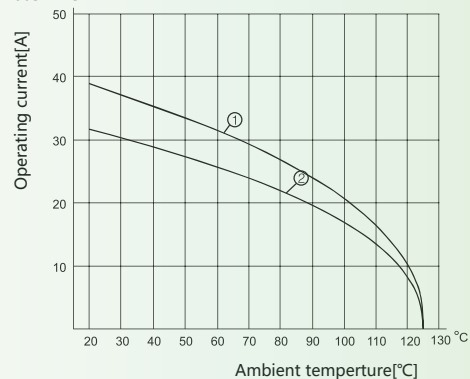
|                                      |                             |
|--------------------------------------|-----------------------------|
| ※Number of connector pins            | 12/2+PE                     |
| ※Rated voltage according to EN61 984 |                             |
| ※Power area                          |                             |
| Rated current                        | 40A                         |
| Rated voltage                        | 690V                        |
| Rated impulse voltage                | 8KV                         |
| Pollution degree                     | 3                           |
| ※Signal area                         |                             |
| Rated current                        | 10A                         |
| Rated voltage                        | 250V                        |
| Rated impulse voltage                | 4KV                         |
| Pollution degree                     | 3                           |
| ※According to UL/CSA rated voltage   | 600/300V                    |
| ※insulation resistance               | $\geq 10^{10}\Omega$        |
| ※Material Science                    | polycarbonate Polycarbonate |
| ※Operating temperature range         | -40°C ~ +125°C              |
| ※Flame retardant grade               | V0                          |
| ※Pluggable times                     | $\geq 500$                  |

#### Pin

|                            |                                  |
|----------------------------|----------------------------------|
| ※Strong electroacupuncture |                                  |
| Material Science           | copper alloy                     |
| surface treatment          | plate with silver<br>gold-plated |
| contact resistance         | $\leq 0.3m\Omega$                |
| Crimping Connection        |                                  |
| Cross Section              | 1.5-6mm <sup>2</sup>             |
| AWG                        | 16-10                            |
| ※Signal pin                |                                  |
| Material Science           | copper alloy                     |
| surface treatment          | plate with silver                |
| contact resistance         | $\leq 3m\Omega$                  |
| Crimping Connection        |                                  |
| Cross Section              | 0.14-2.5mm <sup>2</sup>          |
| AWG                        | 26-14                            |

### Current Load Capacity

The limitation of current load capacity mainly comes from the test and control process of the maximum temperature that the connector including the contact pin can withstand according to DIN EN 605 12-5



①Core cross-section Wire gauge: 6.0mm<sup>2</sup>  
②Core cross-section Wire gauge: 4.0mm<sup>2</sup>

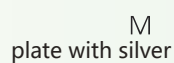


Data ,CAD,3D document please refer to: [WWW.VELLEDQ.COM](http://WWW.VELLEDQ.COM)

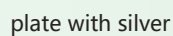
## VELLEDQ®

Combined Insertst 690/250V 40/10A 

## 40A Crimping Pins



## 10A Crimping Pins



gold-plated

gold-plated

| Cross section           |           | Strip length | Φ    | Female    | Male      |
|-------------------------|-----------|--------------|------|-----------|-----------|
| 014-0.37mm <sup>2</sup> | AWG 26-22 | 8mm          | 0.9  | CDGF-0.37 | CDGM-0.37 |
| 0.5mm <sup>2</sup>      | AWG 20    | 8mm          | 1.1  | CDGF-0.5  | CDGM-0.5  |
| 0.75mm <sup>2</sup>     | AWG 18    | 8mm          | 1.3  | CDGF-0.75 | CDGM-0.75 |
| 1.0mm <sup>2</sup>      | AWG 18    | 8mm          | 1.45 | CDGF-1.0  | CDGM-1.0  |
| 1.5mm <sup>2</sup>      | AWG 16    | 8mm          | 1.75 | CDGF-1.5  | CDGM-1.5  |
| 2.5mm <sup>2</sup>      | AWG 14    | 8mm          | 2.25 | CDGF-2.5  | CDGM-2.5  |

# Heavy-Duty Connector

## ● HK-006/6

### Technical Characteristics

#### standard

DIN EN 60 664  
DIN EN 61 984

#### Insert

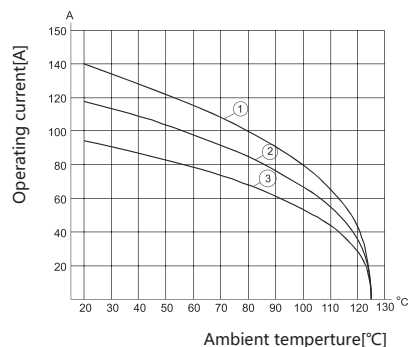
|                                          |                             |
|------------------------------------------|-----------------------------|
| ※Number of connector pins                | 6/6+PE                      |
| ※Rated voltage according to EN61 984     |                             |
| ※Power area                              |                             |
| Rated current                            | 100A                        |
| Rated voltage                            | 690V                        |
| Rated impulse voltage                    | 8KV                         |
| Pollution degree                         | 3                           |
| When the parameter of pollution degree 2 | 100A 1000V 8KV 2            |
| ※Signal area                             |                             |
| Rated current                            | 16A                         |
| Rated voltage                            | 400V                        |
| Rated impulse voltage                    | 6KV                         |
| Pollution degree                         | 3                           |
| ※According to UL rated voltage           | 600/300V                    |
| ※According to UL/CSA rated voltage       | 600/600V                    |
| ※According to UL/CSA rated current       | 100/15A                     |
| ※insulation resistance                   | $\geq 10^{10}\Omega$        |
| ※Material Science                        | polycarbonate Polycarbonate |
| ※Operating temperature range             | -40°C~+125°C                |
| ※Flame retardant grade                   | V0                          |
| ※Pluggable times                         | $\geq 500$                  |

#### Pin

|                             |                        |
|-----------------------------|------------------------|
| ※Strong electroacupuncture  |                        |
| Material Science            | copper alloy           |
| surface treatment           | plate with silver      |
| contact resistance          | $\leq 0.5m\Omega$      |
| Axial screw connection      |                        |
| Cross Section               | 16-35mm <sup>2</sup>   |
| AWG                         | 5-2                    |
| Maximum insulation diameter | 11.4mm                 |
| Tightening torque           |                        |
| mm <sup>2</sup>             | 16 25 35               |
| Nm                          | 6 7 8                  |
| Strip length                | 13±1mm                 |
| ※Signal pin                 |                        |
| Material Science            | copper alloy           |
| surface treatment           | plate with silver      |
| contact resistance          | $\leq 3m\Omega$        |
| Axial screw connection      |                        |
| Cross Section               | 0.2-2.5mm <sup>2</sup> |
| AWG                         | 24-13                  |
| Tightening torque           | 0.8Nm                  |
| Strip length                | 7.5mm                  |

### Current load capacity

The limitation of current load capacity mainly comes from the test and control process of the maximum temperature that the connector including the contact pin can withstand according to DIN EN 605 12-5



- ①Core cross-section Wire gauge: 35mm<sup>2</sup>
- ②Core cross-section Wire gauge: 25mm<sup>2</sup>
- ③Core cross-section Wire gauge: 16mm<sup>2</sup>



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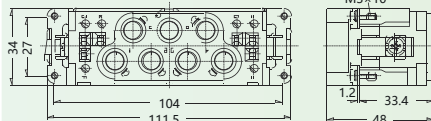
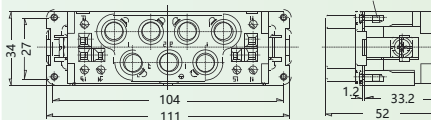
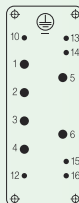
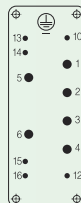
Data ,CAD,3D document please refer to: [WWW.VELLEDQ.COM](http://WWW.VELLEDQ.COM)

# Heavy-Duty Connector



● HK-006/6

Combined Insertst 690/400V 100/16A

| Product Picture                                                                                                                                   | PartNumber | Dimension                                                                                                                                                                                                                                                                                                                                                          |
|---------------------------------------------------------------------------------------------------------------------------------------------------|------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <div>Axial crimping<br/>Match 24B housing/hold</div> <div></div> | HK-006/6-M | <div>Maximum distance between connectors 21mm</div> <div></div> <div>M</div>                                                                                                                                                                                                     |
| <div></div>                                                      | HK-006/6-F | <div></div> <div>F</div> <div>Pin Sequence</div> <div><div><div>M</div></div><div><div>F</div></div></div> |

## Accessories

| tools            |                                                        |                                  |
|------------------|--------------------------------------------------------|----------------------------------|
| Hexagonal Driver | <p>Description</p> <p>For Axial Setscrew With Grip</p> | <p>Form Type</p> <p>BS-4C150</p> |



Data ,CAD,3D document please refer to: [WWW.VELLEDQ.COM](http://WWW.VELLEDQ.COM)

# Heavy-Duty Connector

## ● HK-008/0

### Technical Characteristics

#### standard

DIN EN 60 664  
DIN EN 61 984

#### Insert

|                                      |                             |
|--------------------------------------|-----------------------------|
| ※Number of connector pins            | 8/0+PE                      |
| ※Rated voltage according to EN61 984 |                             |
| ※Power area                          |                             |
| Rated current                        | 100A                        |
| Rated voltage                        | 690V                        |
| Rated impulse voltage                | 8KV                         |
| Pollution degree                     | 3                           |
| Parameters at pollution level 2      | 100A 1000V 8KV 2            |
| ※According to UL/CSA rated voltage   | 600V                        |
| ※According to UL/CSA rated current   | 82A                         |
| ※insulation resistance               | $\geq 10^{10}\Omega$        |
| ※Material Science                    | polycarbonate Polycarbonate |
| ※Operating temperature range         | -40°C~+125°C                |
| ※Flame retardant grade               | V0                          |
| ※Pluggable times                     | $\geq 500$                  |

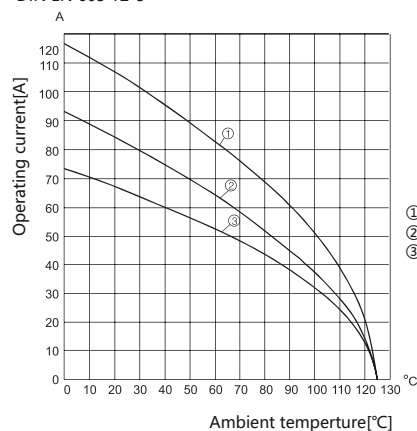
#### Pin

|                             |                      |
|-----------------------------|----------------------|
| ※Material Science           | copper alloy         |
| ※surface treatment          | plate with silver    |
| ※contact resistance         | $\leq 0.5m\Omega$    |
| ※Axial screw connection     |                      |
| mm <sup>2</sup>             | 10-25mm <sup>2</sup> |
| AWG                         | 7-3                  |
| Maximum insulation diameter | 11.4mm               |
| Tightening torque           |                      |
| mm <sup>2</sup>             | 10 16 25             |
| AWG                         | 6 6 7                |
| Strip length                | 13±1mm               |

Combined Insertst 690/100V 8/0+⊕

### Current Load capacity

The limitation of current load capacity mainly comes from the test and control process of the maximum temperature that the connector including the contact pin can withstand according to DIN EN 605 12-5



### Accessories

#### tools

Hexagonal Driver



Description

For Axial Setscrew With Grip

Form Type

BS-4C150

#### Product Picture

#### PartNumber

#### Dimension

#### Axial crimping

Match 24B housing/hold



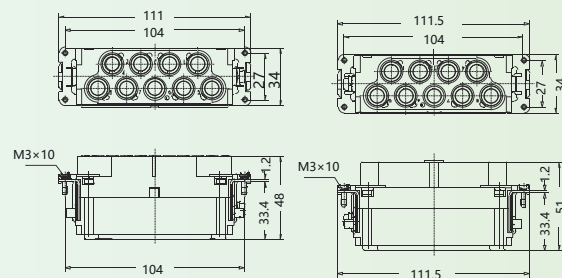
HK-008/0-M

HK-008/0-F

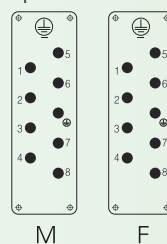
Maximum distance between connectors 24mm

M

F



#### Pin Sequence



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Data ,CAD,3D document please refer to: [WWW.VELLEDQ.COM](http://WWW.VELLEDQ.COM)

# Heavy-Duty Connector

VELLEDQ®

## HQ-002/0

### Technical Characteristics

#### standard

DIN EN 60 664  
DIN EN 61 984

#### Insert

※Number of connector pins 2+PE  
※Rated voltage according to EN61 984 40A  
※Rated current 830V  
※Rated voltage 6KV  
※Pollution degree 3  
※According to UL/CSA rated voltage 600V  
※Insulation resistance  $\geq 10^{10} \Omega$   
※Material Science polycarbonate Polycarbonate  
※Operating temperature range  $-40^{\circ}\text{C} \sim +125^{\circ}\text{C}$   
※Flame retardant grade V0  
※Pluggable times  $\geq 500$

#### Pin

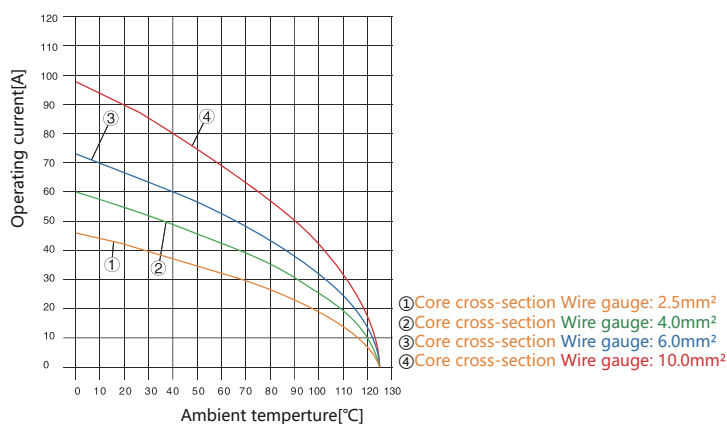
※Material Science copper alloy  
※surface treatment plate with silver  
※contact resistance  $\leq 1\text{m}\Omega$   
※Axial screw connection  
mm<sup>2</sup> 2.5-10mm<sup>2</sup>  
AWG 14-8  
Tightening torque 1.8Nm  
Strip length 8±1mm

#### Housing

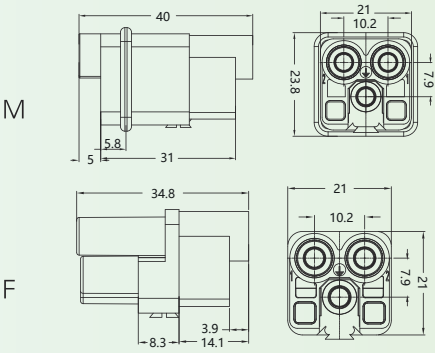
※Plastic shell  
Material Science polycarbonate Polycarbonate  
Flame retardant grade V0  
Degree of protection IP67  
※Metal housing  
Material Science kirsite Zinc Die-cast  
Degree of protection IP44  
IP67(Achieve bolt sealing)

### Current Load Capacity

The limitation of current load capacity mainly comes from the test and control process of the maximum temperature that the connector including the contact pin can withstand according to DIN EN 605 12-5



Compact Small Volume Insertst 400V/40A 2+⊕

| Product Picture                                                                                                                | PartNumber                          | Dimension                                                                            |
|--------------------------------------------------------------------------------------------------------------------------------|-------------------------------------|--------------------------------------------------------------------------------------|
| Axial crimping<br>Match 3A housing/hold<br> | HQ-002.1-M                          |  |
|                                                                                                                                | HQ-002.2-M                          |                                                                                      |
|                                                                                                                                | HQ-002.1/0-F(2.5-6mm <sup>2</sup> ) |                                                                                      |
|                                                                                                                                | HQ-002.2/0-F(4-10mm <sup>2</sup> )  |                                                                                      |

### Accessories

#### tools

Hexagonal Driver



Description

For Axial Setscrew  
With Grip

Form Type

BS-2C40



Communicate Now

# Heavy-Duty Connector

## HQV-002/0

### Technical Characteristics

#### standard

DIN EN 60 664  
DIN EN 61 984

#### Insert

|                                      |                             |
|--------------------------------------|-----------------------------|
| ※Number of connector pins            | 2+PE                        |
| ※Rated voltage according to EN61 984 | 830V                        |
| ※Rated current                       | 40A                         |
| ※Rated voltage                       | 830V                        |
| ※Rated impulse voltage               | 6KV                         |
| ※Pollution degree                    | 3                           |
| ※According to UL/CSA rated voltage   | 400V                        |
| ※insulation resistance               | $\geq 10^{10}\Omega$        |
| ※Material Science                    | polycarbonate Polycarbonate |
| ※Operating temperature range         | -40°C~+125°C                |
| ※Flame retardant grade               | V0                          |
| ※Pluggable times                     | $\geq 500$                  |

#### Pin

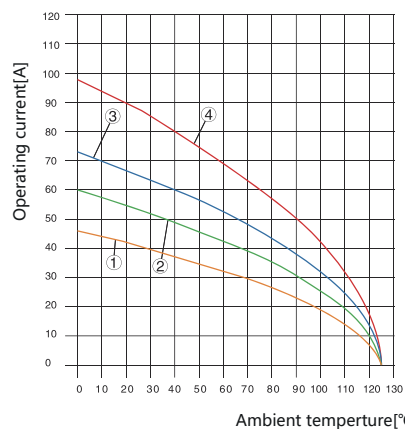
|                         |                        |
|-------------------------|------------------------|
| ※Material Science       | copper alloy           |
| ※surface treatment      | plate with silver      |
| ※contact resistance     | $\leq 1\text{m}\Omega$ |
| ※Axial screw connection |                        |
| mm <sup>2</sup>         | 2.5-10mm <sup>2</sup>  |
| AWG                     | 14-8                   |
| Tightening torque       | 1.8Nm                  |
| Strip length            | 8±1mm                  |

#### Housing

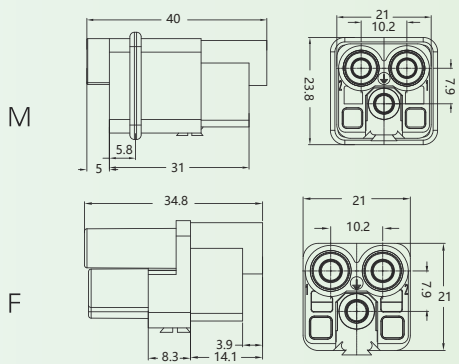
|                       |                             |
|-----------------------|-----------------------------|
| ※Plastic shell        |                             |
| Material Science      | polycarbonate Polycarbonate |
| Flame retardant grade | V0                          |
| Degree of protection  | IP67                        |
| ※Metal housing        |                             |
| Material Science      | kirsite Zinc Die-cast       |
| Degree of protection  | IP44                        |
|                       | IP67(Achieve bolt sealing)  |

### Current Load Capacity

The limitation of current load capacity mainly comes from the test and control process of the maximum temperature that the connector including the contact pin can withstand according to DIN EN 605 12-5



### Compact Small Volume Insertst830V/40A 2+ ⊕

| Product Picture                                                                                                                     | PartNumber                                                                      | Dimension                                                                            |
|-------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------|--------------------------------------------------------------------------------------|
| <p>Axial crimping<br/>Match 3A housing/hold</p>  | <p>HQV-002.1/0-M(2.5-6mm<sup>2</sup>)<br/>HQV-002.2/0-M(4-10mm<sup>2</sup>)</p> |  |
|                                                  | <p>HQV-002.1/0-F(2.5-6mm<sup>2</sup>)<br/>HQV-002.2/0-F(4-10mm<sup>2</sup>)</p> |                                                                                      |

### Accessories

#### tools

Hexagonal Driver



Description

For Axial Setscrew  
With Grip

Form Type

BS-2C40



Data ,CAD,3D document please refer to: [WWW.VELLEDQ.COM](http://WWW.VELLEDQ.COM)

# Heavy-Duty Connector

## HQ-005/0

### Technical Characteristics

standard

DIN EN 60 664  
DIN EN 61 984

Insert

|                                      |                             |
|--------------------------------------|-----------------------------|
| ※Number of connector pins            | 5+PE                        |
| ※Rated voltage according to EN61 984 |                             |
| ※Rated current                       | 16A                         |
| ※Phase to ground rated voltage       | 230V                        |
| ※Rated voltage between phases        | 400V                        |
| ※Rated impulse voltage               | 4KV                         |
| ※Pollution degree                    | 3                           |
| ※Parameters at pollution level 2     | 16A 320/500V 4KV 2          |
| ※According to UL/CSA rated voltage   | 600V                        |
| ※Insulation resistance               | $\geq 10^{10} \Omega$       |
| ※Material Science                    | polycarbonate Polycarbonate |
| ※Operating temperature range         | -40°C~+125°C                |
| ※Flame retardant grade               | V0                          |
| ※Pluggable times                     | $\geq 500$                  |

Pin

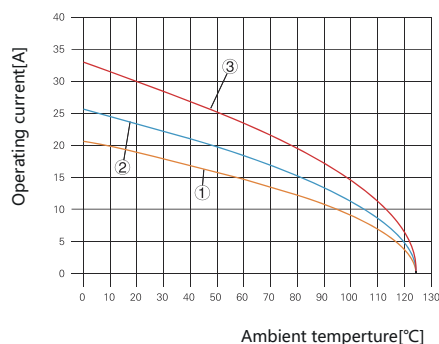
|                      |                                  |
|----------------------|----------------------------------|
| ※Material Science    | copper alloy                     |
| ※surface treatment   | plate with silver<br>gold-plated |
| ※contact resistance  | $\leq 1m\Omega$                  |
| ※Crimping Connecton  |                                  |
| mm <sup>2</sup>      | 0.14-2.5mm <sup>2</sup>          |
| AWG                  | 26-14                            |
| ※PE screw connection |                                  |
| mm <sup>2</sup>      | 2.5mm <sup>2</sup>               |
| AWG                  | 14                               |

Housing

|                       |                             |
|-----------------------|-----------------------------|
| ※Plastic shell        |                             |
| Material Science      | polycarbonate Polycarbonate |
| Flame retardant grade | V0                          |
| Degree of protection  | IP67                        |
| ※Metal housing        |                             |
| Material Science      | kirsite Zinc Die-cast       |
| Degree of protection  | IP44                        |
|                       | IP67(Achieve bolt sealing)  |

### Current Load Capacity

The limitation of current load capacity mainly comes from the test and control process of the maximum temperature that the connector including the contact pin can withstand according to DIN EN 605 12-5



- ①Core cross-section Wire gauge: 1.0mm<sup>2</sup>  
②Core cross-section Wire gauge: 1.5mm<sup>2</sup>  
③Core cross-section Wire gauge: 2.5mm<sup>2</sup>

### Compact Small Volume Insertst230V/400V 16A 5+⊕

| Product Picture                                   | PartNumber                            | Dimension |
|---------------------------------------------------|---------------------------------------|-----------|
| <p>Crimping Inserts<br/>Match 3A housing/hold</p> | <p>HQ-005/0-MC</p> <p>HQ-005/0-FC</p> |           |

### 16A Crimping pins

Technical drawing of a crimping pin. The drawing shows a side view of the pin with a hexagonal base. Dimensions are indicated: 0.45 for the base diameter, 7.5 for the base length, 25 for the total length, and 0.25 for the pin diameter.

plate with silver

| Cross section           |           | Strip length | Female    | Male      |
|-------------------------|-----------|--------------|-----------|-----------|
| 014-0.37mm <sup>2</sup> | AWG 26-22 | 7.5mm        | CESF-0.37 | CESM-0.37 |
| 0.5mm <sup>2</sup>      | AWG 20    | 7.5mm        | CESF-0.5  | CESM-0.5  |
| 0.75mm <sup>2</sup>     | AWG 18    | 7.5mm        | CESF-0.75 | CESM-0.75 |
| 1.0mm <sup>2</sup>      | AWG 18    | 7.5mm        | CESF-1.0  | CESM-1.0  |
| 1.5mm <sup>2</sup>      | AWG 16    | 7.5mm        | CESF-1.5  | CESM-1.5  |
| 2.5mm <sup>2</sup>      | AWG 14    | 7.5mm        | CESF-2.5  | CESM-2.5  |
| 3.0mm <sup>2</sup>      | AWG 12    | 7.5mm        | CESF-3.0  | CESM-3.0  |
| 4.0mm <sup>2</sup>      | AWG 12    | 7.5mm        | CESF-4.0  | CESM-4.0  |

Technical drawing of a crimping pin. The drawing shows a side view of the pin with a crimped end. Dimensions are indicated: a diameter of 0.45mm at the crimped end, a crimp length of 7.5mm, and a total length of 22.2mm.

gold-plated

| Cross section           | Strip length | Female | Male      |           |
|-------------------------|--------------|--------|-----------|-----------|
| 014-0.37mm <sup>2</sup> | AWG 26-22    | 7.5mm  | CEGF-0.37 | CEGM-0.37 |
| 0.5mm <sup>2</sup>      | AWG 20       | 7.5mm  | CEGF-0.5  | CEGM-0.5  |
| 0.75mm <sup>2</sup>     | AWG 18       | 7.5mm  | CEGF-0.75 | CEGM-0.75 |
| 1.0mm <sup>2</sup>      | AWG 18       | 7.5mm  | CEGF-1.0  | CEGM-1.0  |
| 1.5mm <sup>2</sup>      | AWG 16       | 7.5mm  | CEGF-1.5  | CEGM-1.5  |
| 2.5mm <sup>2</sup>      | AWG 14       | 7.5mm  | CEGF-2.5  | CEGM-2.5  |
| 3.0mm <sup>2</sup>      | AWG 12       | 7.5mm  | CEGF-3.0  | CEGM-3.0  |
| 4.0mm <sup>2</sup>      | AWG 12       | 7.5mm  | CEGF-4.0  | CEGM-4.0  |



# Heavy-Duty Connector

## HQ-007/0

### Technical Characteristics

#### standard

DIN EN 60 664  
DIN EN 61 984

#### Insert

|                                      |                             |
|--------------------------------------|-----------------------------|
| ※Number of connector pins            | 7+PE                        |
| ※Rated voltage according to EN61 984 |                             |
| ※Rated current                       | 10A                         |
| ※Rated voltage                       | 400V                        |
| ※Rated impulse voltage               | 6KV                         |
| ※Pollution degree                    | 3                           |
| ※Parameters at pollution level 2     | 10A 400/690V 6KV 2          |
| ※According to UL/CSA rated voltage   | 600V                        |
| ※insulation resistance               | $\geq 10^{10}\Omega$        |
| ※Material Science                    | polycarbonate Polycarbonate |
| ※Operating temperature range         | -40°C~+125°C                |
| ※Flame retardant grade               | V0                          |
| ※Pluggable times                     | $\geq 500$                  |

#### Pin

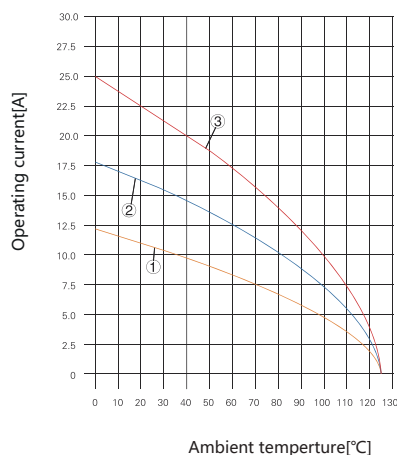
|                      |                                  |
|----------------------|----------------------------------|
| ※Material Science    | copper alloy                     |
| ※surface treatment   | plate with silver<br>gold-plated |
| ※contact resistance  | $\leq 3m\Omega$                  |
| ※Crimping Connection |                                  |
| mm <sup>2</sup>      | 0.14-2.5mm <sup>2</sup>          |
| AWG                  | 26-14                            |
| ※PE screw connection |                                  |
| mm <sup>2</sup>      | 2.5mm <sup>2</sup>               |
| AWG                  | 14                               |

#### Housing

|                       |                             |
|-----------------------|-----------------------------|
| ※Plastic shell        |                             |
| Material Science      | polycarbonate Polycarbonate |
| Flame retardant grade | V0                          |
| Degree of protection  | IP67                        |
| ※Metal housing        |                             |
| Material Science      | kirsite Zinc Die-cast       |
| Degree of protection  | IP44                        |
|                       | IP67(Achieve bolt sealing)  |

### Current Load Capacity

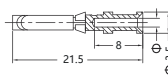
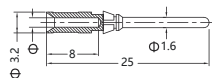
The limitation of current load capacity mainly comes from the test and control process of the maximum temperature that the connector including the contact pin can withstand according to DIN EN 605 12-5



### Compact Small Volume Insertst400V 10A 7+ ⊕

| Product Picture                                   | PartNumber  | Dimension |
|---------------------------------------------------|-------------|-----------|
| <p>Crimping Inserts<br/>Match 3A housing/hold</p> | HQ-007/0-MC |           |
|                                                   | HQ-007/0-FC |           |

### 10A Crimping Pins



#### plate with silver

| Cross section |           | Strip length | Φ    | Female    | Male      |
|---------------|-----------|--------------|------|-----------|-----------|
| 014-0.37mm²   | AWG 26-22 | 8mm          | 0.9  | CDSF-0.37 | CDSM-0.37 |
| 0.5mm²        | AWG 20    | 8mm          | 1.1  | CDSF-0.5  | CDSM-0.5  |
| 0.75mm²       | AWG 18    | 8mm          | 1.3  | CDSF-0.75 | CDSM-0.75 |
| 1.0mm²        | AWG 18    | 8mm          | 1.45 | CDSF-1.0  | CDSM-1.0  |
| 1.5mm²        | AWG 16    | 8mm          | 1.75 | CDSF-1.5  | CDSM-1.5  |
| 2.5mm²        | AWG 14    | 8mm          | 2.25 | CDSF-2.5  | CDSM-2.5  |

#### gold-plated

| Cross section |           | Strip length | Φ    | Female    | Male      |
|---------------|-----------|--------------|------|-----------|-----------|
| 014-0.37mm²   | AWG 26-22 | 8mm          | 0.9  | CDGF-0.37 | CDGM-0.37 |
| 0.5mm²        | AWG 20    | 8mm          | 1.1  | CDGF-0.5  | CDGM-0.5  |
| 0.75mm²       | AWG 18    | 8mm          | 1.3  | CDGF-0.75 | CDGM-0.75 |
| 1.0mm²        | AWG 18    | 8mm          | 1.45 | CDGF-1.0  | CDGM-1.0  |
| 1.5mm²        | AWG 16    | 8mm          | 1.75 | CDGF-1.5  | CDGM-1.5  |
| 2.5mm²        | AWG 14    | 8mm          | 2.25 | CDGF-2.5  | CDGM-2.5  |



Data ,CAD,3D document please refer to: [WWW.VELLEDQ.COM](http://WWW.VELLEDQ.COM)

# Heavy-Duty Connector

## HQ-012/0

### Technical Characteristics

#### standard

DIN EN 60 664  
DIN EN 61 984

#### Insert

※Number of connector pins 12+PE  
※Rated voltage according to EN61 984  
※Rated current 10A  
※Rated voltage 400V  
※Rated impulse voltage 6KV  
※Pollution degree 3  
※Parameters at pollution level 2 10A 400/690V 6KV 2  
※According to UL/CSA rated voltage 600V  
※Insulation resistance  $\geq 10^{10}\Omega$   
※Material Science polycarbonate Polycarbonate  
※Operating temperature range -40°C ~ +125°C  
※Flame retardant grade V0  
※Pluggable times  $\geq 500$

#### Pin

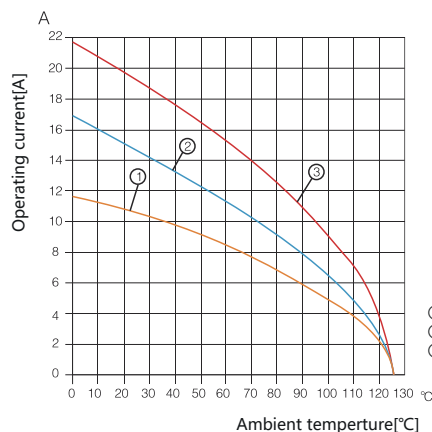
※Material Science copper alloy  
※Surface treatment plate with silver  
gold-plated  
※Contact resistance  $\leq 3m\Omega$   
※Crimping Connecton  
mm<sup>2</sup> 0.14-2.5mm<sup>2</sup>  
AWG 26-14  
※PE screw connection  
mm<sup>2</sup> 0.5-2.5mm<sup>2</sup>  
AWG 20-14

#### Housing

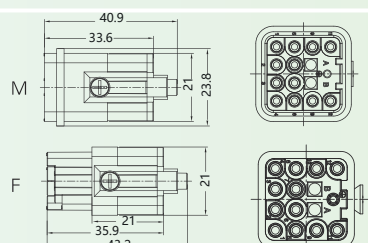
※Plastic shell  
Material Science polycarbonate Polycarbonate  
Flame retardant grade V0  
Degree of protection IP67  
※Metal housing  
Material Science kirsite Zinc Die-cast  
Degree of protection IP44  
IP67(Achieve bolt sealing)

### Current Load Capacity

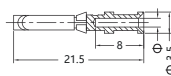
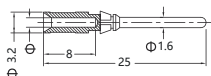
The limitation of current load capacity mainly comes from the test and control process of the maximum temperature that the connector including the contact pin can withstand according to DIN EN 605 12-5



### Compact Small Volume Insertst 400V 10A 12+ ⚡

| Product Picture                                                                                                                         | PartNumber                       | Dimension                                                                            |
|-----------------------------------------------------------------------------------------------------------------------------------------|----------------------------------|--------------------------------------------------------------------------------------|
| <b>Crimping Inserts</b><br>Match 3A housing/hold<br> | HQB-012/0-MC<br><br>HQB-012/0-FC |  |

### 10A Crimping Pins



#### plate with silver

| Cross section |           | Strip length | Φ    | Female    | Male      |
|---------------|-----------|--------------|------|-----------|-----------|
| 014-0.37mm²   | AWG 26-22 | 8mm          | 0.9  | CDSF-0.37 | CDSM-0.37 |
| 0.5mm²        | AWG 20    | 8mm          | 1.1  | CDSF-0.5  | CDSM-0.5  |
| 0.75mm²       | AWG 18    | 8mm          | 1.3  | CDSF-0.75 | CDSM-0.75 |
| 1.0mm²        | AWG 18    | 8mm          | 1.45 | CDSF-1.0  | CDSM-1.0  |
| 1.5mm²        | AWG 16    | 8mm          | 1.75 | CDSF-1.5  | CDSM-1.5  |
| 2.5mm²        | AWG 14    | 8mm          | 2.25 | CDSF-2.5  | CDSM-2.5  |

#### gold-plated

| Cross section |           | Strip length | Φ    | Female    | Male      |
|---------------|-----------|--------------|------|-----------|-----------|
| 014-0.37mm²   | AWG 26-22 | 8mm          | 0.9  | CDGF-0.37 | CDGM-0.37 |
| 0.5mm²        | AWG 20    | 8mm          | 1.1  | CDGF-0.5  | CDGM-0.5  |
| 0.75mm²       | AWG 18    | 8mm          | 1.3  | CDGF-0.75 | CDGM-0.75 |
| 1.0mm²        | AWG 18    | 8mm          | 1.45 | CDGF-1.0  | CDGM-1.0  |
| 1.5mm²        | AWG 16    | 8mm          | 1.75 | CDGF-1.5  | CDGM-1.5  |
| 2.5mm²        | AWG 14    | 8mm          | 2.25 | CDGF-2.5  | CDGM-2.5  |



# Heavy-Duty Connector

## HQ-008/0

### Technical Characteristics

#### standard

DIN EN 60 664  
DIN EN 61 984

#### Insert

|                                      |                             |
|--------------------------------------|-----------------------------|
| ※Number of connector pins            | 8+PE                        |
| ※Rated voltage according to EN61 984 |                             |
| ※Rated current                       | 16A                         |
| ※Rated voltage                       | 500V                        |
| ※Rated impulse voltage               | 6KV                         |
| ※Pollution degree                    | 3                           |
| ※Parameters at pollution level 2     | 16A 400/690V 6KV 2          |
| ※When installing metal housing       | 16A 230/400V 4KV 3          |
| ※According to UL/CSA rated voltage   | 600V                        |
| ※insulation resistance               | $\geq 10^9 \Omega$          |
| ※Material Science                    | polycarbonate Polycarbonate |
| ※Operating temperature range         | -40°C~+125°C                |
| ※Flame retardant grade               | V0                          |
| ※Pluggable times                     | $\geq 500$                  |

#### Pin

|                      |                                                           |
|----------------------|-----------------------------------------------------------|
| ※Material Science    | copper alloy                                              |
| ※surface treatment   | plate with silver<br>gold-plated                          |
| ※contact resistance  | $\leq 1m\Omega$                                           |
| ※Crimping Connection |                                                           |
| mm <sup>2</sup>      | 0.14-2.5mm <sup>2</sup> (Up to 4mm with some equipment ?) |
| AWG                  | 26-12                                                     |

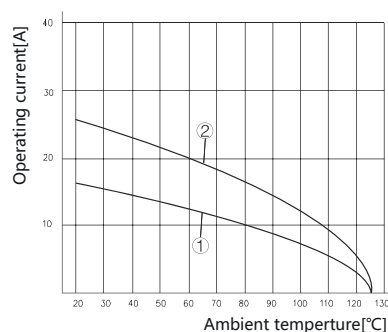
Compact Small Volume Insertst 500V 16A 8+ 

#### Housing

|                             |                            |
|-----------------------------|----------------------------|
| ※Plastic shell              |                            |
| Material Science            | Thermoplastic Hermoplastic |
| Interlocking element        | Polyamide (nylon)Polyamide |
| Enclosure seal              | NBR                        |
| Operating temperature range | -40°C~+125°C               |
| Flame retardant grade       | V0                         |
| Degree of protection        | IP65                       |
| ※Metal housing              |                            |
| Material Science            | Metal                      |
| Interlocking element        | Stainless Steel            |
| Enclosure seal              | NBR                        |
| Operating temperature range | -40°C~+125°C               |
| Degree of protection        | IP65                       |

### Current Load Capacity

The limitation of current load capacity mainly comes from the test and control process of the maximum temperature that the connector including the contact pin can withstand according to DIN EN 605 12-5



①Core cross-section Wire gauge: 1.5mm<sup>2</sup>  
②Core cross-section Wire gauge: 2.5mm<sup>2</sup>

#### Product Picture

#### PartNumber

#### Dimension

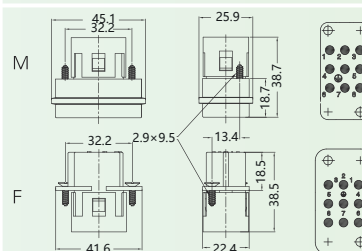
#### Crimping Inserts

Match HC housing/hold



HQ-008/0-MC

HQ-008/0-FC



### 16A Crimping pins

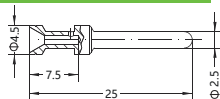
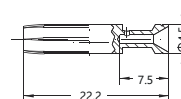


plate with silver

| Cross section           | Strip length | Female | Male      |
|-------------------------|--------------|--------|-----------|
| 014-0.37mm <sup>2</sup> | AWG 26-22    | 7.5mm  | CESF-0.37 |
| 0.5mm <sup>2</sup>      | AWG 20       | 7.5mm  | CESF-0.5  |
| 0.75mm <sup>2</sup>     | AWG 18       | 7.5mm  | CESF-0.75 |
| 1.0mm <sup>2</sup>      | AWG 18       | 7.5mm  | CESF-1.0  |
| 1.5mm <sup>2</sup>      | AWG 16       | 7.5mm  | CESF-1.5  |
| 2.5mm <sup>2</sup>      | AWG 14       | 7.5mm  | CESF-2.5  |
| 3.0mm <sup>2</sup>      | AWG 12       | 7.5mm  | CESF-3.0  |
| 4.0mm <sup>2</sup>      | AWG 12       | 7.5mm  | CESF-4.0  |



gold-plated

| Cross section           | Strip length | Female | Male      |
|-------------------------|--------------|--------|-----------|
| 014-0.37mm <sup>2</sup> | AWG 26-22    | 7.5mm  | CEGF-0.37 |
| 0.5mm <sup>2</sup>      | AWG 20       | 7.5mm  | CEGF-0.5  |
| 0.75mm <sup>2</sup>     | AWG 18       | 7.5mm  | CEGF-0.75 |
| 1.0mm <sup>2</sup>      | AWG 18       | 7.5mm  | CEGF-1.0  |
| 1.5mm <sup>2</sup>      | AWG 16       | 7.5mm  | CEGF-1.5  |
| 2.5mm <sup>2</sup>      | AWG 14       | 7.5mm  | CEGF-2.5  |
| 3.0mm <sup>2</sup>      | AWG 12       | 7.5mm  | CEGF-3.0  |
| 4.0mm <sup>2</sup>      | AWG 12       | 7.5mm  | CEGF-4.0  |



Data ,CAD,3D document please refer to: [WWW.VELLEDQ.COM](http://WWW.VELLEDQ.COM)

# Heavy-Duty Connector

VELLEDQ®

## HQ-017/0

### Technical Characteristics

#### standard

DIN EN 60 664  
DIN EN 61 984

#### Insert

|                                      |                             |
|--------------------------------------|-----------------------------|
| ※Number of connector pins            | 17+PE                       |
| ※Rated voltage according to EN61 984 |                             |
| ※Rated current                       | 10A                         |
| ※Rated voltage                       | 250V                        |
| ※Rated impulse voltage               | 4KV                         |
| ※Pollution degree                    | 2                           |
| ※According to UL/CSA rated voltage   | 250V                        |
| ※insulation resistance               | ≥10 <sup>10</sup> Ω         |
| ※Material Science                    | polycarbonate Polycarbonate |
| ※Operating temperature range         | -40°C~+125°C                |
| ※Flame retardant grade               | V0                          |
| ※Pluggable times                     | ≥500                        |

#### Pin

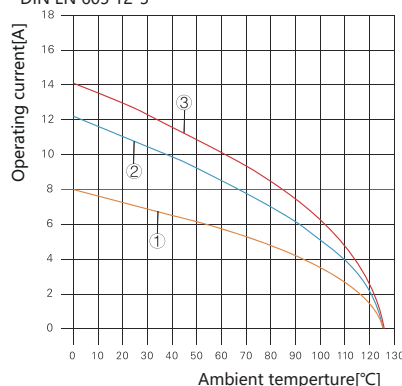
|                      |                                  |
|----------------------|----------------------------------|
| ※Material Science    | copper alloy                     |
| ※surface treatment   | plate with silver<br>gold-plated |
| ※contact resistance  | ≤3mΩ                             |
| ※Crimping Connection |                                  |
| mm <sup>2</sup>      | 0.14-2.5mm <sup>2</sup>          |
| AWG                  | 26-12                            |

#### Housing

|                             |                            |
|-----------------------------|----------------------------|
| ※Plastic shell              |                            |
| Material Science            | Thermoplastic Hermoplastic |
| Interlocking element        | Polyamide (nylon)Polyamide |
| Enclosure seal              | NBR                        |
| Operating temperature range | -40°C~+125°C               |
| Flame retardant grade       | V0                         |
| Degree of protection        | IP65                       |
| ※Metal housing              |                            |
| Material Science            | Metal                      |
| Interlocking element        | Stainless Steel            |
| Enclosure seal              | NBR                        |
| Operating temperature range | -40°C~+125°C               |
| Degree of protection        | IP65                       |

### Current Load Capacity

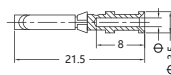
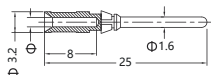
The limitation of current load capacity mainly comes from the test and control process of the maximum temperature that the connector including the contact pin can withstand according to DIN EN 605 12-5



### Compact Small Volume Insertst250V 10A 17+ ⊕

| Product Picture                                      | PartNumber                     | Dimension |
|------------------------------------------------------|--------------------------------|-----------|
| <b>Crimping Inserts</b><br>Match HC housing/hold<br> | HQ-017/0-MC<br><br>HQ-017/0-FC |           |

### 10A Crimping Pins



#### plate with silver

| Cross section           | Strip length | Φ   | Female | Male      |
|-------------------------|--------------|-----|--------|-----------|
| 014-0.37mm <sup>2</sup> | AWG 26-22    | 8mm | 0.9    | CDSF-0.37 |
| 0.5mm <sup>2</sup>      | AWG 20       | 8mm | 1.1    | CDSF-0.5  |
| 0.75mm <sup>2</sup>     | AWG 18       | 8mm | 1.3    | CDSF-0.75 |
| 1.0mm <sup>2</sup>      | AWG 18       | 8mm | 1.45   | CDSF-1.0  |
| 1.5mm <sup>2</sup>      | AWG 16       | 8mm | 1.75   | CDSF-1.5  |
| 2.5mm <sup>2</sup>      | AWG 14       | 8mm | 2.25   | CDSF-2.5  |

#### gold-plated

| Cross section           | Strip length | Φ   | Female | Male      |
|-------------------------|--------------|-----|--------|-----------|
| 014-0.37mm <sup>2</sup> | AWG 26-22    | 8mm | 0.9    | CDGF-0.37 |
| 0.5mm <sup>2</sup>      | AWG 20       | 8mm | 1.1    | CDGF-0.5  |
| 0.75mm <sup>2</sup>     | AWG 18       | 8mm | 1.3    | CDGF-0.75 |
| 1.0mm <sup>2</sup>      | AWG 18       | 8mm | 1.45   | CDGF-1.0  |
| 1.5mm <sup>2</sup>      | AWG 16       | 8mm | 1.75   | CDGF-1.5  |
| 2.5mm <sup>2</sup>      | AWG 14       | 8mm | 2.25   | CDGF-2.5  |



# Heavy-Duty Connector

## HQ-004/2

### Technical Characteristics

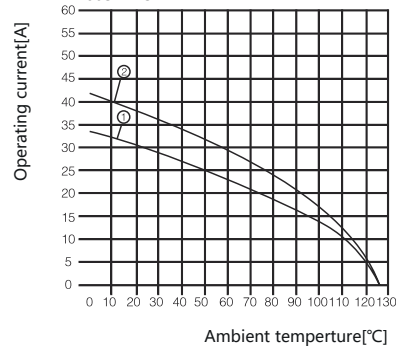
|                                      |                             |
|--------------------------------------|-----------------------------|
| standard                             |                             |
| DIN EN 60 664<br>DIN EN 61 984       |                             |
| Insert                               |                             |
| ※Number of connector pins            | 4/2+PE                      |
| ※Rated voltage according to EN61 984 |                             |
| ※Power area                          |                             |
| Rated current                        | 40A                         |
| Rated voltage                        | 400V                        |
| Rated voltage between phases         | 690V                        |
| Rated impulse voltage                | 6KV                         |
| Pollution degree                     | 3                           |
| ※Signal area                         |                             |
| Rated current                        | 10A                         |
| Rated voltage                        | 250V                        |
| Rated impulse voltage                | 4KV                         |
| Pollution degree                     | 3                           |
| ※According to UL/CSA rated voltage   | 600/250V                    |
| insulation resistance                | $\geq 10^{10} \Omega$       |
| Material Science                     | polycarbonate Polycarbonate |
| Operating temperature range          | -40°C ~ +125°C              |
| Flame retardant grade                | V0                          |
| Pluggable times                      | $\geq 500$                  |
| Housing                              |                             |
| ※Plastic shell                       |                             |
| Material Science                     | Hermoplastic                |
| Interlocking element                 | Polyamide                   |
| Enclosure seal                       | NBR                         |
| Operating temperature range          | -40°C ~ +125°C              |
| Flame retardant grade                | V0                          |
| Degree of protection                 | IP65                        |

### Pin

|                              |                                               |
|------------------------------|-----------------------------------------------|
| ※Material Science            | copper alloy                                  |
| ※surface treatment           | plate with silver<br>gold-plated              |
| ※contact resistance          | $\leq 0.3m\Omega$                             |
| ※Cold pressed connection     |                                               |
| mm <sup>2</sup>              | 1.5-6mm <sup>2</sup> /0.14-2.5mm <sup>2</sup> |
| AWG                          | 16-10/26-14                                   |
| ※Maximum insulation diameter |                                               |
| Strong electrocupuncture     | 5mm                                           |

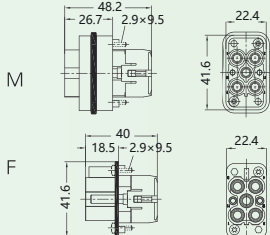
### Current Load Capacity

The limitation of current load capacity mainly comes from the test and control process of the maximum temperature that the connector including the contact pin can withstand according to DIN EN 605 12-5

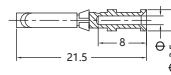
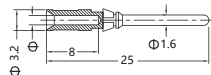


① Core cross-section Wire gauge: 2.5mm<sup>2</sup>  
② Core cross-section Wire gauge: 4.0mm<sup>2</sup>

### Compact Small Volume Insertst 400/690V 40/10A 4/2+⊕

| Product Picture                                                                                                                         | PartNumber  | Dimension                                                                            |
|-----------------------------------------------------------------------------------------------------------------------------------------|-------------|--------------------------------------------------------------------------------------|
| <b>Crimping Inserts</b><br>Match HC housing/hold<br> | HQ-004/2-MC |  |
|                                                                                                                                         | HQ-004/2-FC |                                                                                      |

### 10A Crimping Pins



### plate with silver

| Cross section           | Strip length | Φ   | Female | Male      |
|-------------------------|--------------|-----|--------|-----------|
| 014-0.37mm <sup>2</sup> | AWG 26-22    | 8mm | 0.9    | CDSF-0.37 |
| 0.5mm <sup>2</sup>      | AWG 20       | 8mm | 1.1    | CDSF-0.5  |
| 0.75mm <sup>2</sup>     | AWG 18       | 8mm | 1.3    | CDSF-0.75 |
| 1.0mm <sup>2</sup>      | AWG 18       | 8mm | 1.45   | CDSF-1.0  |
| 1.5mm <sup>2</sup>      | AWG 16       | 8mm | 1.75   | CDSF-1.5  |
| 2.5mm <sup>2</sup>      | AWG 14       | 8mm | 2.25   | CDSF-2.5  |

### gold-plated

| Cross section           | Strip length | Φ   | Female | Male      |
|-------------------------|--------------|-----|--------|-----------|
| 014-0.37mm <sup>2</sup> | AWG 26-22    | 8mm | 0.9    | CDGF-0.37 |
| 0.5mm <sup>2</sup>      | AWG 20       | 8mm | 1.1    | CDGF-0.5  |
| 0.75mm <sup>2</sup>     | AWG 18       | 8mm | 1.3    | CDGF-0.75 |
| 1.0mm <sup>2</sup>      | AWG 18       | 8mm | 1.45   | CDGF-1.0  |
| 1.5mm <sup>2</sup>      | AWG 16       | 8mm | 1.75   | CDGF-1.5  |
| 2.5mm <sup>2</sup>      | AWG 14       | 8mm | 2.25   | CDGF-2.5  |



Data ,CAD,3D document please refer to: [WWW.VELLEDQ.COM](http://WWW.VELLEDQ.COM)

# Heavy-Duty Connector



| Product Picture | PartNumber     | Dimension |
|-----------------|----------------|-----------|
|                 | HC.P-S-2B-PG16 |           |

