

# VCTF 23N~~※~~ VCTF 23N~~※~~S

ハイブレン

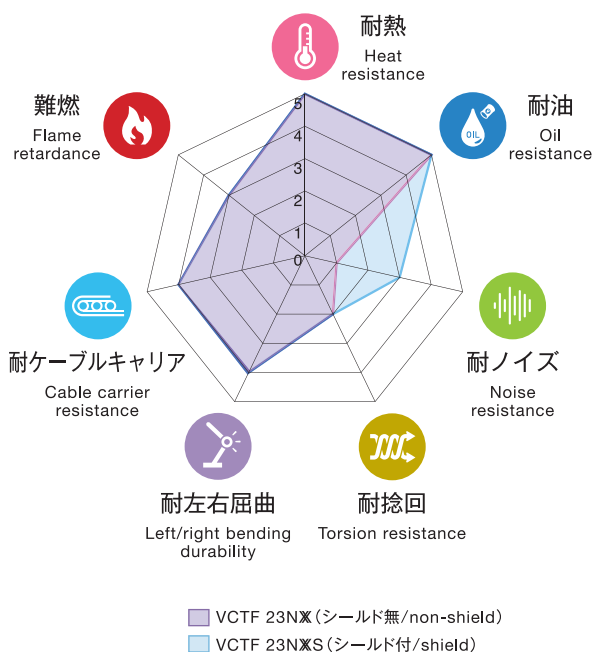


&lt;PS&gt;E



## 特性レーダーチャート

Characteristics Radar chart of Cable



## 製品仕様

Specification

## 特長 / Features

- 細線化導体による屈曲性  
Bending durability with stranded conductor of fine wires
- 耐油・耐熱性  
Oil resistance, heat resistance

## 使用温度範囲 / Temperature range

- 固定時 / Fixed: -30~105℃ ※
- 可動時 / Flexing: 0~105℃  
※ 0℃以下でご利用の際は、衝撃・屈曲・振動等の外的力が加わらないようにしてください。  
If you use it in temperature less than 0℃, you should be careful about shocks, flexure, vibration and so on.

## 曲げ半径 / Bending radius

- 固定時: ケーブル外径の4倍以上推奨  
Fixed: 4 times or more of the cable diameter
- 可動時: ケーブル外径の7.5倍以上推奨  
Flexing: 7.5 times or more of the cable diameter

## テクニカルデータ / Technical data

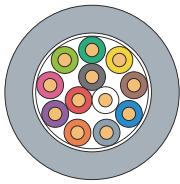
| 適用規格/Adaptation standard  | UL・cUL         |                  | <PS>E                                                        |
|---------------------------|----------------|------------------|--------------------------------------------------------------|
|                           | UL 758         | CSA C22.2 No.210 | 電気用品安全法<br>Electrical Appliance and<br>Material Safety Law ※ |
| ケーブルタイプ/Cable designation | AWM Style 2517 | AWM              | VCTF                                                         |
| 適用サイズ/Adaptation size     | 全サイズ/All Size  |                  | 0.75~2mm <sup>2</sup>                                        |
| 定格電圧/Voltage rating       | 300V           |                  |                                                              |
| 定格温度/Temperature rating   | 105℃           |                  | 75℃                                                          |
| 試験電圧/Test voltage         | AC 2000V・1min  |                  |                                                              |
| 難燃性/Flame retardance      | VW-1           | FT1              | 60°傾斜/60°Angle                                               |

※ 0.3、0.5mm<sup>2</sup>は電気用品安全法が適用されませんので、信号及び通信回路などの弱電流回路にご使用ください。

0.3 and 0.5mm<sup>2</sup> of VCTF 23N~~※~~ and VCTF 23N~~※~~S are excluded to "Electrical Appliance and Material Safety Law", for this reason, those cable sizes should be used for cable connection to signal and communication circuits and other weak current electrical circuits in JAPAN.

| 構造概略 / Construction |                                                                  |                                             |
|---------------------|------------------------------------------------------------------|---------------------------------------------|
| 品名/Code             | VCTF 23N $\times$                                                | VCTF 23N $\times$ S                         |
| 導体/Conductor        | 軟銅集合線/Strands of wire composed of annealed copper                |                                             |
| 絶縁体/Insulation      | 耐熱性ビニル混合物/Heat resistant PVC                                     |                                             |
| より合わせ/Assembly      | 線心を円形により合わせ/Circular                                             |                                             |
| テープ/Tape            | 5心以上はテープを重ね巻き/Tape wrap around cores if conductors are 5 or more |                                             |
| シールド/Shield         | -                                                                | すずめっき軟銅線編組/Tin coated annealed copper braid |
| シース/Sheath          | 耐油・耐熱性ビニル混合物(黒色)/Oil and heat resistant PVC (black)              |                                             |

例示 / Example [VCTF 23N $\times$  12 $\times$ 0.75mm<sup>2</sup> (19AWG)]



印刷表示 / Surface printing

VCTF 23N $\times$  〈PS〉E JET KURAMO タイネツ 300V ハイブレン(耐熱 耐油型)0.75mm<sup>2</sup> LF  
KURAMO E162205-K  AWM STYLE 2517 I A/B 105C 300V VW-1 FT1 19AWG

| 線心数 / No. of conductors | 線心識別方式 / Conductors identification   |                                                                                                                                                                                                                    |
|-------------------------|--------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 12心以下 / 12 or less      | 絶縁体着色方式<br>Identification by color   | <br>黒 Black   白 White   赤 Red   緑 Green   黄 Yellow   茶 Brown   青 Blue   灰 Gray   橙 Orange   紫 Purple   桃 Pink   若草 Light green |
| 13心以上 / 13 or more      | ナンバリング方式<br>Identification by number | 白色絶縁体上の青色ナンバリング<br>White insulations blue ink numbering is printed on the surface of White color insulation                                                                                                        |

| 構造表 / Construction table              |                                                           |                                 |                            |                                           |                                 |                                           |                                 |                                |
|---------------------------------------|-----------------------------------------------------------|---------------------------------|----------------------------|-------------------------------------------|---------------------------------|-------------------------------------------|---------------------------------|--------------------------------|
| 導体 / Conductor                        |                                                           | 絶縁 / Insulation                 | 心数<br>Number of conductors | シールド無し / Non-shield                       |                                 | シールド付き / Shield                           |                                 | 許容電流<br>Allowable ampacity (A) |
| 公称断面積<br>Nominal cross sectional area | 外径(約mm)<br>Diameter (Approx.mm)<br>構成<br>{ Construction } | 外径(約mm)<br>Diameter (Approx.mm) |                            | シース外径(約mm)<br>Sheath diameter (Approx.mm) | 概算質量<br>Approx.weight (kg / km) | シース外径(約mm)<br>Sheath diameter (Approx.mm) | 概算質量<br>Approx.weight (kg / km) |                                |
| 0.3mm <sup>2</sup><br>(23AWG)         | 0.7<br>(60/0.08)                                          | 1.7                             | 2                          | 5.4                                       | 40                              | 6.1                                       | 55                              | 4                              |
|                                       |                                                           |                                 | 3                          | 5.7                                       | 45                              | 6.4                                       | 60                              | 4                              |
|                                       |                                                           |                                 | 4                          | 6.1                                       | 50                              | 6.8                                       | 65                              | 4                              |
|                                       |                                                           |                                 | 5                          | 6.8                                       | 55                              | 7.3                                       | 70                              | 4                              |
|                                       |                                                           |                                 | 6                          | 7.3                                       | 65                              | 7.8                                       | 80                              | 4                              |
|                                       |                                                           |                                 | 7                          | 7.8                                       | 75                              | 8.3                                       | 90                              | 3                              |
|                                       |                                                           |                                 | 8                          | 8.3                                       | 80                              | 8.8                                       | 100                             | 3                              |
|                                       |                                                           |                                 | 10                         | 9.4                                       | 100                             | 9.9                                       | 120                             | 3                              |
|                                       |                                                           |                                 | 12                         | 9.2                                       | 105                             | 9.6                                       | 125                             | 3                              |
|                                       |                                                           |                                 | 14                         | 9.6                                       | 115                             | 10.0                                      | 140                             | 3                              |
|                                       |                                                           |                                 | 15                         | 9.8                                       | 120                             | 10.5                                      | 150                             | 2                              |
|                                       |                                                           |                                 | 16                         | 10.0                                      | 130                             | 10.5                                      | 155                             | 2                              |
|                                       |                                                           |                                 | 20                         | 11.0                                      | 160                             | 11.5                                      | 185                             | 2                              |
|                                       |                                                           |                                 | 24                         | 12.5                                      | 190                             | 13.0                                      | 220                             | 2                              |
|                                       |                                                           |                                 | 25                         | 12.5                                      | 195                             | 13.0                                      | 240                             | 2                              |
|                                       |                                                           |                                 | 26                         | 13.0                                      | 210                             | 14.0                                      | 245                             | 2                              |
|                                       |                                                           |                                 | 30                         | 13.0                                      | 220                             | 14.0                                      | 255                             | 2                              |
|                                       |                                                           |                                 | 40                         | 15.0                                      | 290                             | 15.5                                      | 325                             | 2                              |

構造表 / Construction table

| 導体 / Conductor                           |                                            | 絶縁 / Insulation                    | 心数<br>Number of<br>conductors | シールド無し / Non-shield                          |                                    | シールド付き / Shield                              |                                    | 許容電流<br>Allowable<br>ampacity<br>(A) |
|------------------------------------------|--------------------------------------------|------------------------------------|-------------------------------|----------------------------------------------|------------------------------------|----------------------------------------------|------------------------------------|--------------------------------------|
| 公称断面積<br>Nominal cross<br>sectional area | 外径(約mm)<br>Diameter<br>(Approx.mm)<br>〈構成〉 | 外径(約mm)<br>Diameter<br>(Approx.mm) |                               | シース外径(約mm)<br>Sheath diameter<br>(Approx.mm) | 概算質量<br>Approx.weight<br>(kg / km) | シース外径(約mm)<br>Sheath diameter<br>(Approx.mm) | 概算質量<br>Approx.weight<br>(kg / km) |                                      |
| 0.5mm <sup>2</sup><br>〈20AWG〉            | 0.95<br>〈108/0.08〉                         | 1.9                                | 2                             | 5.8                                          | 45                                 | 6.5                                          | 60                                 | 6                                    |
|                                          |                                            |                                    | 3                             | 6.1                                          | 55                                 | 6.8                                          | 70                                 | 6                                    |
|                                          |                                            |                                    | 4                             | 6.6                                          | 65                                 | 7.2                                          | 80                                 | 6                                    |
|                                          |                                            |                                    | 5                             | 7.3                                          | 70                                 | 7.8                                          | 90                                 | 5                                    |
|                                          |                                            |                                    | 6                             | 7.9                                          | 85                                 | 8.4                                          | 100                                | 5                                    |
|                                          |                                            |                                    | 7                             | 8.5                                          | 95                                 | 9.0                                          | 115                                | 5                                    |
|                                          |                                            |                                    | 8                             | 9.1                                          | 110                                | 9.6                                          | 130                                | 4                                    |
|                                          |                                            |                                    | 10                            | 10.5                                         | 135                                | 11.0                                         | 160                                | 4                                    |
|                                          |                                            |                                    | 12                            | 10.0                                         | 140                                | 10.5                                         | 160                                | 4                                    |
|                                          |                                            |                                    | 14                            | 10.5                                         | 160                                | 11.0                                         | 180                                | 4                                    |
|                                          |                                            |                                    | 15                            | 11.0                                         | 170                                | 11.5                                         | 195                                | 3                                    |
|                                          |                                            |                                    | 16                            | 11.0                                         | 180                                | 11.5                                         | 205                                | 3                                    |
|                                          |                                            |                                    | 20                            | 12.5                                         | 215                                | 13.0                                         | 245                                | 3                                    |
|                                          |                                            |                                    | 24                            | 14.0                                         | 265                                | 14.5                                         | 300                                | 3                                    |
|                                          |                                            |                                    | 25                            | 14.0                                         | 275                                | 14.5                                         | 305                                | 3                                    |
|                                          |                                            |                                    | 26                            | 14.5                                         | 290                                | 15.0                                         | 320                                | 3                                    |
|                                          |                                            |                                    | 30                            | 14.5                                         | 310                                | 15.0                                         | 345                                | 3                                    |
|                                          |                                            |                                    | 40                            | 17.0                                         | 420                                | 17.5                                         | 455                                | 2                                    |
| 0.75mm <sup>2</sup><br>〈19AWG〉           | 1.1<br>〈67/0.12〉                           | 2.3                                | 2                             | 6.6                                          | 60                                 | 7.3                                          | 80                                 | 8                                    |
|                                          |                                            |                                    | 3                             | 7.0                                          | 70                                 | 7.7                                          | 90                                 | 8                                    |
|                                          |                                            |                                    | 4                             | 7.6                                          | 85                                 | 8.3                                          | 105                                | 8                                    |
|                                          |                                            |                                    | 5                             | 8.4                                          | 95                                 | 8.9                                          | 115                                | 7                                    |
|                                          |                                            |                                    | 6                             | 9.1                                          | 110                                | 9.6                                          | 130                                | 7                                    |
|                                          |                                            |                                    | 7                             | 9.8                                          | 130                                | 10.5                                         | 150                                | 6                                    |
|                                          |                                            |                                    | 8                             | 10.5                                         | 145                                | 11.0                                         | 165                                | 6                                    |
|                                          |                                            |                                    | 10                            | 12.5                                         | 185                                | 13.0                                         | 210                                | 6                                    |
|                                          |                                            |                                    | 12                            | 12.0                                         | 190                                | 12.5                                         | 215                                | 5                                    |
|                                          |                                            |                                    | 14                            | 12.5                                         | 220                                | 13.0                                         | 245                                | 5                                    |
|                                          |                                            |                                    | 15                            | 12.5                                         | 230                                | 13.0                                         | 260                                | 5                                    |
|                                          |                                            |                                    | 16                            | 13.0                                         | 245                                | 13.5                                         | 280                                | 5                                    |
|                                          |                                            |                                    | 20                            | 14.5                                         | 305                                | 15.0                                         | 335                                | 4                                    |
|                                          |                                            |                                    | 24                            | 17.0                                         | 375                                | 17.5                                         | 415                                | 4                                    |
|                                          |                                            |                                    | 25                            | 17.0                                         | 385                                | 17.5                                         | 425                                | 4                                    |
|                                          |                                            |                                    | 26                            | 17.5                                         | 400                                | 18.0                                         | 440                                | 4                                    |
|                                          |                                            |                                    | 30                            | 17.5                                         | 430                                | 18.0                                         | 470                                | 4                                    |
|                                          |                                            |                                    | 40                            | 20.0                                         | 580                                | 20.5                                         | 630                                | 3                                    |
|                                          |                                            |                                    | 70                            | 26.5                                         | 1010                               |                                              |                                    | 2                                    |

| 構造表 / Construction table                 |                                                              |                                    |                               |                                              |                                    |                                              |                                    |                                      |
|------------------------------------------|--------------------------------------------------------------|------------------------------------|-------------------------------|----------------------------------------------|------------------------------------|----------------------------------------------|------------------------------------|--------------------------------------|
| 導体 / Conductor                           |                                                              | 絶縁 / Insulation                    | 心数<br>Number of<br>conductors | シールド無し / Non-shield                          |                                    | シールド付き / Shield                              |                                    | 許容電流<br>Allowable<br>ampacity<br>(A) |
| 公称断面積<br>Nominal cross<br>sectional area | 外径(約mm)<br>Diameter<br>(Approx.mm)<br>構成<br>{ Construction } | 外径(約mm)<br>Diameter<br>(Approx.mm) |                               | シース外径(約mm)<br>Sheath diameter<br>(Approx.mm) | 概算質量<br>Approx.weight<br>(kg / km) | シース外径(約mm)<br>Sheath diameter<br>(Approx.mm) | 概算質量<br>Approx.weight<br>(kg / km) |                                      |
| 1.25mm <sup>2</sup><br>(17AWG)           | 1.5<br>(112/0.12)                                            | 2.7                                | 2                             | 7.4                                          | 80                                 | 8.1                                          | 100                                | 14                                   |
|                                          |                                                              |                                    | 3                             | 7.8                                          | 95                                 | 8.5                                          | 115                                | 14                                   |
|                                          |                                                              |                                    | 4                             | 8.5                                          | 115                                | 9.2                                          | 140                                | 14                                   |
|                                          |                                                              |                                    | 5                             | 9.5                                          | 130                                | 10.0                                         | 150                                | 11                                   |
|                                          |                                                              |                                    | 6                             | 10.5                                         | 155                                | 11.0                                         | 175                                | 10                                   |
|                                          |                                                              |                                    | 7                             | 11.0                                         | 175                                | 11.5                                         | 200                                | 9                                    |
|                                          |                                                              |                                    | 8                             | 12.0                                         | 200                                | 12.5                                         | 225                                | 9                                    |
|                                          |                                                              |                                    | 10                            | 14.5                                         | 265                                | 15.0                                         | 295                                | 8                                    |
|                                          |                                                              |                                    | 12                            | 13.5                                         | 275                                | 14.0                                         | 305                                | 8                                    |
|                                          |                                                              |                                    | 14                            | 14.5                                         | 315                                | 15.0                                         | 345                                | 7                                    |
|                                          |                                                              |                                    | 15                            | 14.5                                         | 335                                | 15.0                                         | 370                                | 7                                    |
|                                          |                                                              |                                    | 16                            | 15.0                                         | 360                                | 15.5                                         | 390                                | 7                                    |
|                                          |                                                              |                                    | 20                            | 17.0                                         | 440                                | 17.5                                         | 475                                | 6                                    |
|                                          |                                                              |                                    | 24                            | 19.5                                         | 540                                | 20.0                                         | 590                                | 6                                    |
|                                          |                                                              |                                    | 25                            | 19.5                                         | 560                                | 20.0                                         | 610                                | 6                                    |
|                                          |                                                              |                                    | 26                            | 20.0                                         | 580                                | 21.5                                         | 670                                | 5                                    |
|                                          |                                                              |                                    | 30                            | 20.0                                         | 640                                | 21.5                                         | 730                                | 5                                    |
|                                          |                                                              |                                    | 40                            | 23.5                                         | 870                                | 24.0                                         | 930                                | 5                                    |
| 2mm <sup>2</sup><br>(15AWG)              | 1.8<br>(79/0.18)                                             | 3.0                                | 2                             | 8.0                                          | 105                                | 8.7                                          | 125                                | 20                                   |
|                                          |                                                              |                                    | 3                             | 8.5                                          | 125                                | 9.2                                          | 150                                | 20                                   |
|                                          |                                                              |                                    | 4                             | 9.2                                          | 155                                | 9.9                                          | 180                                | 20                                   |
|                                          |                                                              |                                    | 5                             | 10.5                                         | 175                                | 11.0                                         | 195                                | 14                                   |
|                                          |                                                              |                                    | 6                             | 11.5                                         | 205                                | 12.0                                         | 230                                | 13                                   |
|                                          |                                                              |                                    | 7                             | 12.0                                         | 240                                | 12.5                                         | 265                                | 12                                   |
|                                          |                                                              |                                    | 8                             | 13.0                                         | 270                                | 14.0                                         | 305                                | 11                                   |
|                                          |                                                              |                                    | 10                            | 15.5                                         | 355                                | 16.5                                         | 395                                | 11                                   |
|                                          |                                                              |                                    | 12                            | 15.0                                         | 375                                | 15.0                                         | 405                                | 10                                   |
|                                          |                                                              |                                    | 14                            | 15.5                                         | 430                                | 16.5                                         | 475                                | 9                                    |
|                                          |                                                              |                                    | 15                            | 16.0                                         | 465                                | 16.5                                         | 510                                | 9                                    |
|                                          |                                                              |                                    | 16                            | 16.5                                         | 500                                | 17.0                                         | 540                                | 9                                    |
|                                          |                                                              |                                    | 20                            | 18.5                                         | 610                                | 19.0                                         | 670                                | 8                                    |
|                                          |                                                              |                                    | 24                            | 22.0                                         | 780                                | 22.5                                         | 840                                | 7                                    |
|                                          |                                                              |                                    | 25                            | 22.0                                         | 810                                | 22.5                                         | 870                                | 7                                    |
|                                          |                                                              |                                    | 26                            | 23.0                                         | 840                                | 23.5                                         | 900                                | 7                                    |
|                                          |                                                              |                                    | 30                            | 23.0                                         | 920                                | 23.5                                         | 990                                | 7                                    |
|                                          |                                                              |                                    | 40                            | 26.0                                         | 1210                               | 26.5                                         | 1280                               | 6                                    |

・許容電流値は、JCS0168により周囲温度30°C、空中1条布設時の計算値を示し、保証値ではありません。  
 Allowable ampacity (A) for cable is based on calculation by JCS0168 under aerial one-cable and temperature at 30°C, not representing a guaranteed value.

・周囲温度30°C以上及び多条布設の場合には、技術資料 (P195) の表3の電流減少係数及び低減率を許容電流値に乘じてください。  
 Allowable ampacity cable at ambient temperature above 30°C and multiple cables installed is to be determined by multiplying the current value by the appropriate current reduction factor in the following table 3 of the technical information (P213).