

## 1 Datasheet W-TEC 15M MALE/SMOOTH 4x2,5+2x1,5 DA4



source

destination

xxxxx (see order no:) stands for the length in cm.

The stripped cores of our W-TEC 15 standard assemblies with open cable ends are test cores that are not intended for customer use.


## 2 Application

Cable for the connection of asynchronous motors and 3-phase consumer's with 2 Signalpins

## 3 General component properties

### 3.1 Cataloguing

| DESIGNATION                         | VALUE       | UNIT |
|-------------------------------------|-------------|------|
| product designation of manufacturer | W-TEC 15    |      |
| MANUFACTURER ARTICLE NUMBER         | 1135027     |      |
| Product utilization of the cable    | PERFORMANCE |      |
| UL Mark                             | UL Listed   |      |
| eCl@ss 9.0                          | 27-06-04-90 |      |
| country of origin                   | DE          |      |

|                |                        |       |   |                               |                  |      |
|----------------|------------------------|-------|---|-------------------------------|------------------|------|
| 27.10.2023-RSP | Adaptation Eclass      | 7.0   |  | UL- Identification            | Order no.        |      |
| 24.07.2023-RSP | New: IEC 61076-2-116   | 6.0   |   | W-TEC 15M-GCS-XXX-61416-XX-TS | 1135027-xxxxx    |      |
| 24.11.2022-RSP | Service approval       | 5.0   |   | Designation                   | <b>Datasheet</b> |      |
| 23.08.2021-ROS | Service approval       | 4.0   |   | W-TEC 15M MALE/SMOOTH         | Created          | Page |
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### 3.2 Electrical properties

| DESIGNATION  | VALUE                              | UNIT      |
|--|------------------------------------|-----------|
| Rated value of current                                       | 16                                 | A         |
| Rated current auxiliary wires                                | 10                                 | A         |
| rated voltage  | 600                                | V AC      |
| Rated voltage auxiliary wires                                | 250                                | V AC / DC |
| rated impulse voltage  | 6                                  | kV        |
| shield   | Yes                                |           |
| Design of ground wire  | according to VDE 0627              |           |
| Overvoltage category according to DIN EN 60664-1             | 3                                  |           |
| Plugging under voltage according to DIN EN 61984             | No                                 |           |
| degree of contamination                                      | 3                                  |           |
| earthed conductor present                                    | yes (PE) leading on pin side 1,2mm |           |
| neutral conductor  | No                                 |           |
| Degree of protection by encapsulation according to IEC 60529 | No                                 |           |
| Application standards  | DIN EN 61984 / IEC 61076-2-116     |           |

If the plug connection is disconnected for an indefinite period of time from a exposed to industrial atmospheres, the contact chamber is equipped with a cover cap to protect against pollution.

\*To determine max. load currents, deratings for used connection conductor cross-sections as well as reduction factors for conductors, cables and lines in the electrical equipment of machines according to DIN EN 60204-1 must be taken into account.

### 3.3 Weights


| DESIGNATION      | VALUE | UNIT |
|------------------|-------|------|
| Connection 1     | 290   | g/m  |
| Connector Source | 33    | g    |

### 3.4 Approval

| DESIGNATION     | VALUE                         | UNIT |
|-----------------|-------------------------------|------|
| UL.CCN **       | PVVA.E486020                  |      |
| CSA.CCN **      | PVVA7.E486020                 |      |
| CCC             | No                            |      |
| GOST-R          | No                            |      |
| CE Nomenclature | W-TEC 15M-GCS-XXX-61416-XX-TS |      |

#### 3.4.1 Approvals Supplements

\*\* Suitable For Use On a Circuit Capable Of Delivering Not More Than 5,000 rms Symmetrical Amperes, 600V Maximum.  
When Protected by Time Delay (See Table Below) Class Fuses:

|                |                        |       |   |                               |                  |
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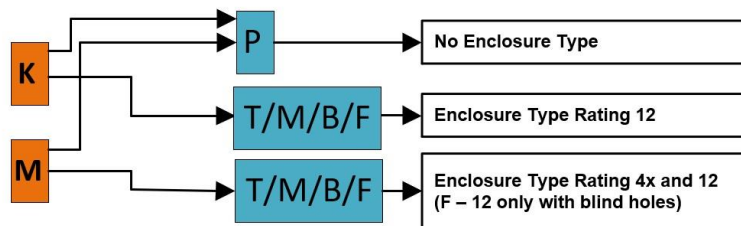
| Cat. No(s).    | Time Delay (TD) /Non-time delay (NTD) | Fuse Class | Fuse Current Rating (A) | SCCR (kA) | Voltage V AC |
|----------------|---------------------------------------|------------|-------------------------|-----------|--------------|
| All rated 13 A | TD                                    | RK5        | 25                      | 5         | 600          |
|                | TD                                    | J          | 60                      | 50        | 600          |
|                | TD                                    | CC         | 30                      | 50        | 600          |
| All rated 16 A | TD                                    | RK5        | 35                      | 5         | 600          |
|                | TD                                    | J          | 60                      | 50        | 600          |
|                | TD                                    | CC         | 30                      | 50        | 600          |

Suitable For Use On A Circuit Capable Of Delivering Not More Than 50kA rms Symmetrical Amperes, 480 Vac Maximum, When Protcted By A Circuit Breaker Rated Not More Than 16A, Having An Interrupting Rating Not Less Than 50kA rms Symmetrical Amperes, 480Vac Maximum.

Circuit Breakers:

| Cat. No(s). | Model/Type | Manufacturer / UL File | Current Rating (A) | SCCR (kA) | Voltage V AC |
|-------------|------------|------------------------|--------------------|-----------|--------------|
| All         | Any        | Any / Any              | 16                 | 50        | 480Y/277 Vac |


X - T E C 1 5 - - - X X X ...



X - T E C 1 5 - X X X - - -

### 3.5 Thermal properties

| DESIGNATION   | VALUE | UNIT |
|---|-------|------|
| min. permissible cable outside temperature, when moving | -20   | °C   |
| max. permissible cable outside temperature, when moving | 60    | °C   |
| min. permissible cable outside temperature, fixed laid  | -35   | °C   |
| max. permissible cable outside temperature, fixed laid  | 70    | °C   |

|                |                        |       |   |                               |                  |
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### 3.6 UL Ratings

| DESIGNATION                             | VALUE  | UNIT |
|---|--------|------|
| Reference to UL standard                | 2237   |      |
| cross section of the wire (AWG)         | 14     | AWG  |
| Auxiliary wires Wire gauge              | 16     | AWG  |
| Encl. Type (UL 50/CSA C22.2 NO.94.1-15) | 4X, 12 |      |
| Flame resist. of the plug head (UL 94)  | HB     |      |
| AWM Style of cable                      | 21223  |      |

### 3.7 Other features

| DESIGNATION                              | VALUE                              | UNIT |
|--|------------------------------------|------|
| RoHS compliant                           | 2011/65/EU under exception III 6c  |      |
| REACH SVHC substances                    | Lead (CAS 7439-92-1, EC 231-100-4) |      |
| halogen-free                             | Yes                                |      |
| Oil-resistant in accordance EN 60811-2-1 | Yes                                |      |
| flame-resistant                          | Yes                                |      |

The material of the housing-encapsulation is plastic and has a good resistance to chemicals and oil. If aggressive media are used, the material resistance must be checked in relation to the application. Further details on request.

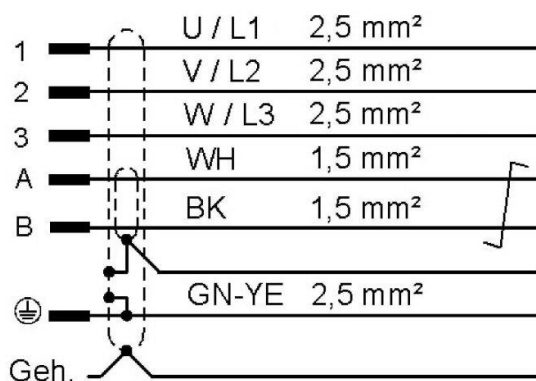
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## 4 General structure


### 4.1 Allocation plan



### 4.2 Cable

#### 4.2.1 Cable construction

| DESIGNATION  | VALUE   | UNIT            |
|--|---|-----------------|
| Structure Line                                     | 4 x 2,5mm <sup>2</sup> + 2 x 1,5mm <sup>2</sup> |                 |
| Number of wires                                    | 4   |                 |
| conductor cross-section                            | 2,5   | mm <sup>2</sup> |
| max. main core diameter<br>incl. insulation D      | 3   | mm              |
| Auxiliary wires Number                             | 2   |                 |
| Auxiliary wires Wire gauge                         | 1,5   | mm <sup>2</sup> |
| max. auxiliary core diameter<br>incl. insulation D | 2,4   | mm              |
| outer shield                                       | Yes   |                 |
| optical coverage outer<br>screen                   | 80  | %               |
| internal shield                                    | Yes   |                 |
| optical covering inner shield                      | 70  | %               |
| color of the outer sheath                          | orange RAL 2003                                 |                 |
| material of the sheath                             | PUR   |                 |
| coat colour main wires                             | black/green-yellow                              |                 |
| coat colour auxiliary wires                        | black/white                                     |                 |
| Identification of main wires                       | consecutive number imprint (1-3)                |                 |
| Identification of auxiliary<br>wires               | coloured  |                 |
| Core insulation material                           | TPM   |                 |
| outside diameter                                   | 12,9 +-0,4                                      | mm              |
| insulation resistance                              | >= 1000   | MΩm/km          |


|                |                        |       |   |                               |                  |
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#### 4.2.2 Mechanical properties

| DESIGNATION                     | VALUE    | UNIT  |
|---------------------------------|----------|-------|
| installation type               | flexible |       |
| dynamic value                   | DA4      |       |
| Minimum bending radius moves    | 10       | xD mm |
| Minimum bending radius fixed    | 5        | xD mm |
| Max. permissible torsion stress | ± 15     | °/m   |

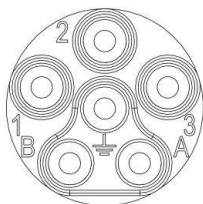
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## 5 Construction Source

### 5.1 Pole diagram Source



### 5.2 Construction Source

| DESIGNATION                                  | VALUE                            | UNIT          |
|--|----------------------------------|---------------|
| Size of construction                         | X-TEC 15                         |               |
| locking type                                 | Quick release fastener           |               |
| Type of plug-in contact, head 1              | free plug-in pin                 |               |
| Number of poles                              | 6                                |               |
| Arrangement of the cable lead-in, head 1     | straight                         |               |
| Material Seals                               | NBR                              |               |
| production type                              | overmoulded                      |               |
| Housing material                             | Technomelt                       |               |
| Material Insulating body                     | PA 6.6                           |               |
| Design of the electrical connection (head 1) | Crimp connection                 |               |
| Material Contacts                            | Copper alloy, hard silver plated |               |
| contact resistance                           | <3                               | mOhm          |
| Mechanical life Contacts                     | 500                              | mating cycles |
| degree of protection                         | IP66/67                          |               |

|                |                        |       |   |                               |                  |      |
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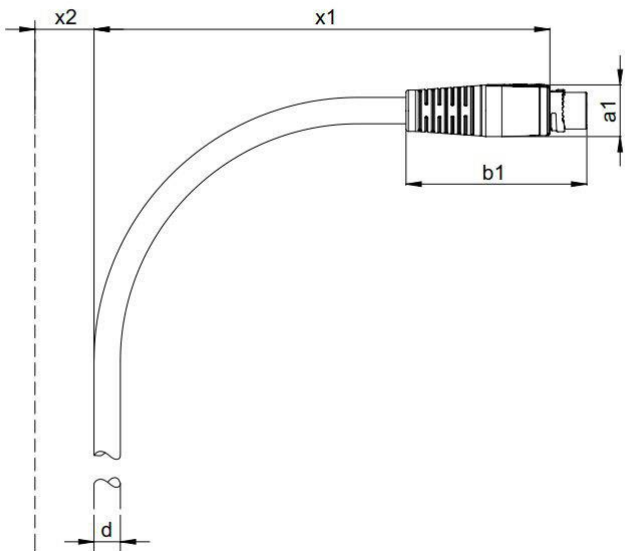
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5.3 Space requirement source

| DESIGNATION  | VALUE | UNIT |
|--|-------|------|
| (a1) max. plug diameter                                    | 22    | mm   |
| (b1) Plug length   | 75    | mm   |
| (x1) in mated condition                                    | 191,1 | mm   |
| (x2) additional distance to interfering contour plugged in | 18    | mm   |

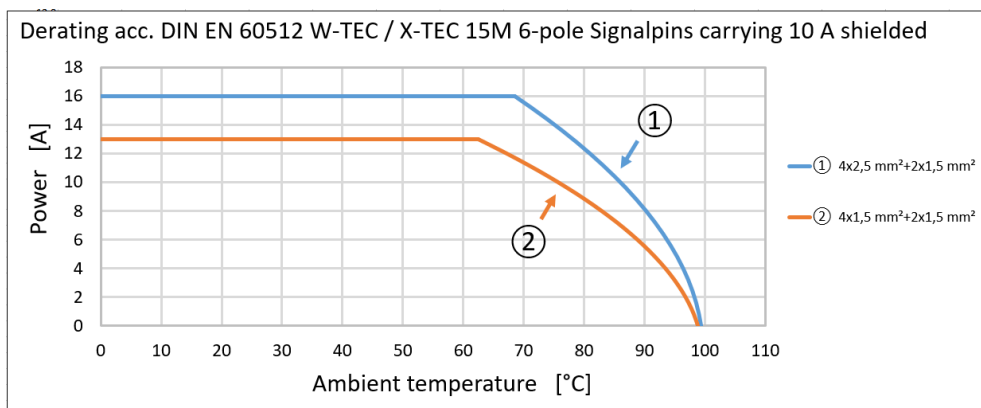
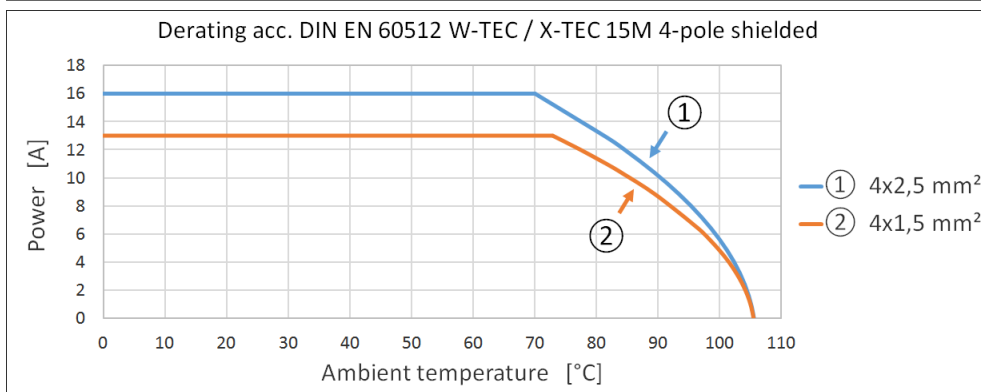
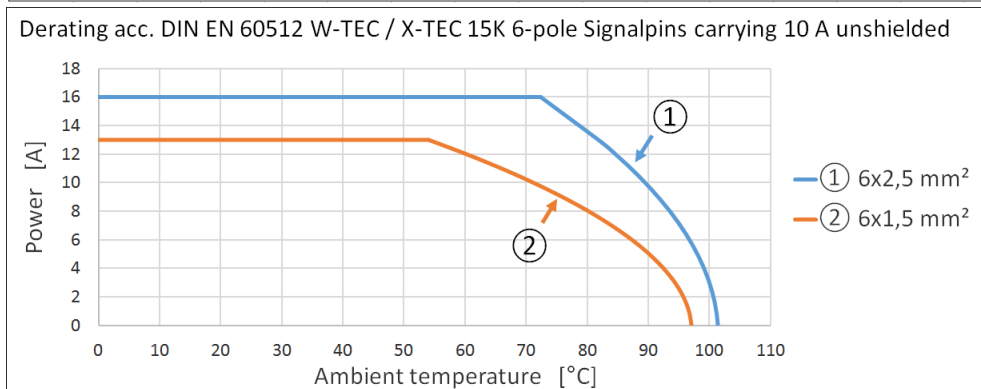
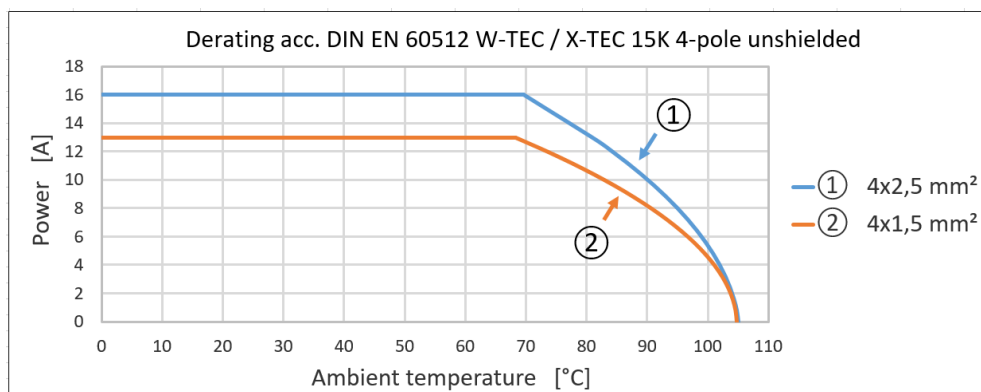
5.4 Schematic diagram Source




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## 6 Derating

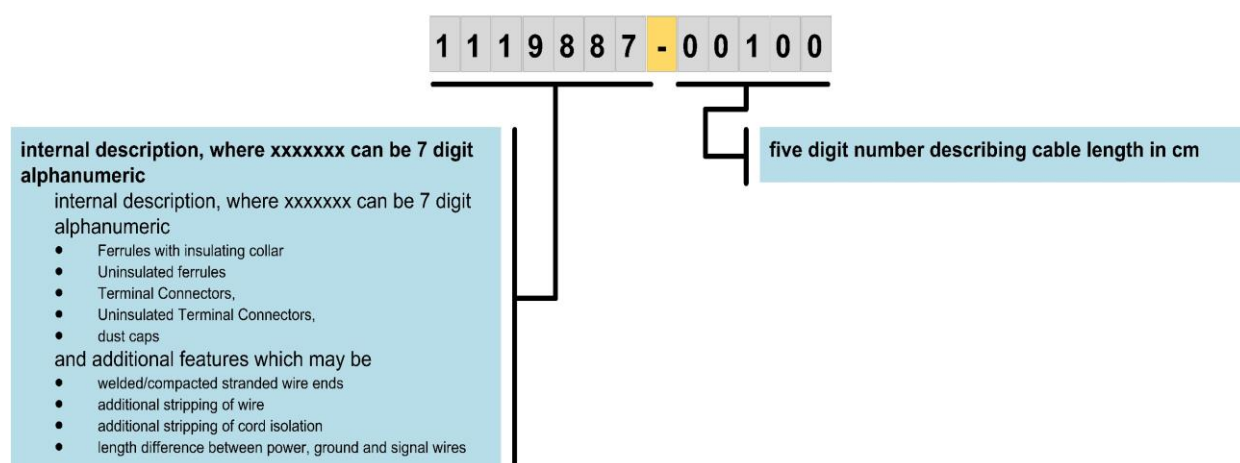
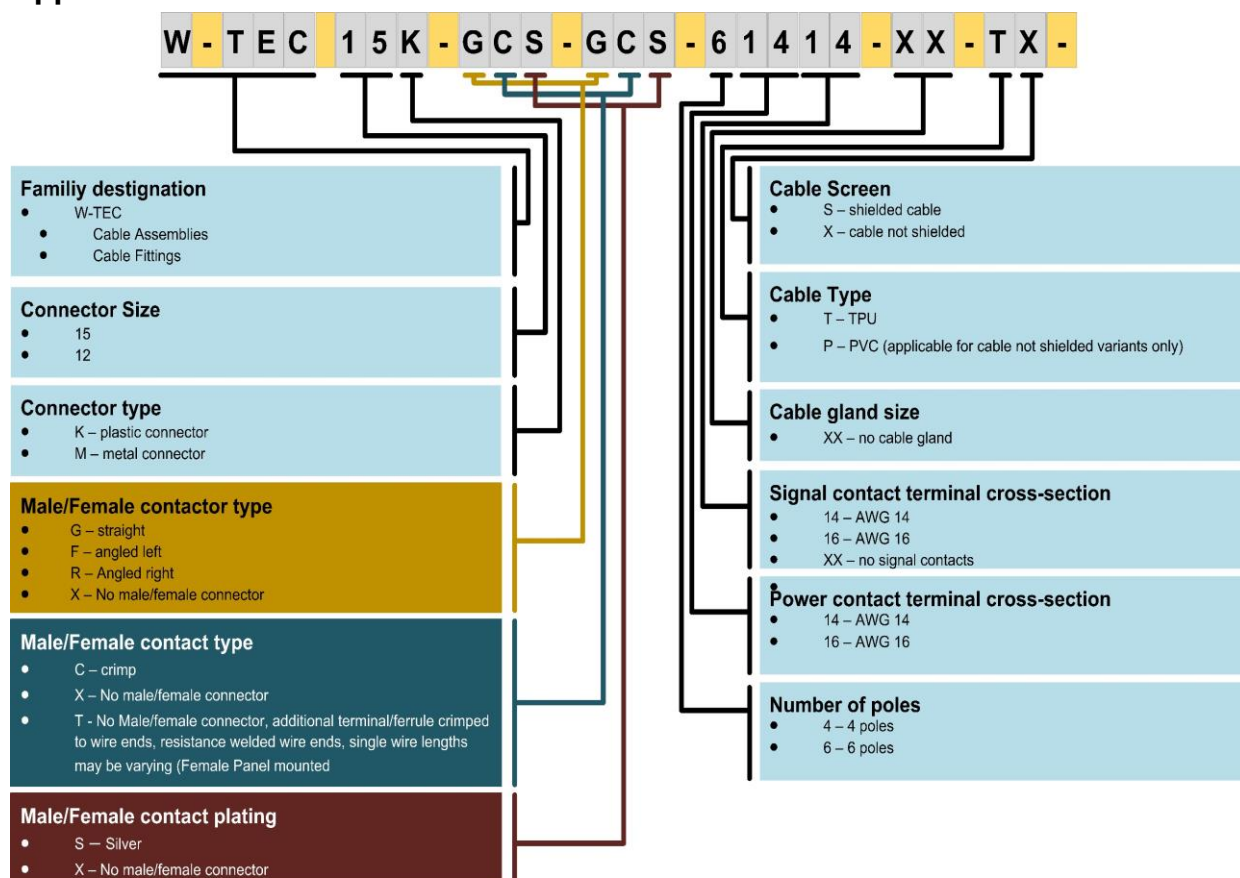



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## 7 Appendix Nomenclature



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