

# 1 Datasheet W-TEC 15K SMOOTH/FEMALE 6x1,5 DA0



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         | 1146382     |      |
| Product utilization of the cable    | PERFORMANCE |      |
| eCl@ss 9.0                          | 27-06-04-90 |      |
| country of origin                   | DE          |      |

|                |                        |       |   |                               |                  |      |
|----------------|------------------------|-------|---|-------------------------------|------------------|------|
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| 17.04.2019-CP  | Creation               | 11    |   | W-TEC 15K-XXX-GCS-61616-XX-PX | 1146382-xxxxx    |      |
| 12.11.2018-JH  | Creation               | 10    |   | Designation                   | <b>Datasheet</b> |      |
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### 3.2 Electrical properties

| DESIGNATION  | VALUE                          | UNIT      |
|--|--------------------------------|-----------|
| Rated value of current                                       | 13                             | 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   | No                             |           |
| 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)                       |           |
| 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     | 146   | g/m  |
| Connector Target | 24    | g    |

### 3.4 Approval

| DESIGNATION     | VALUE                         | UNIT |
|-----------------|-------------------------------|------|
| UL.CCN **       | PVVA.E486020                  |      |
| CSA.CCN **      | PVVA7.E486020                 |      |
| CCC             | No                            |      |
| GOST-R          | No                            |      |
| CE Nomenclature | W-TEC 15K-XXX-GCS-61616-XX-PX |      |

#### 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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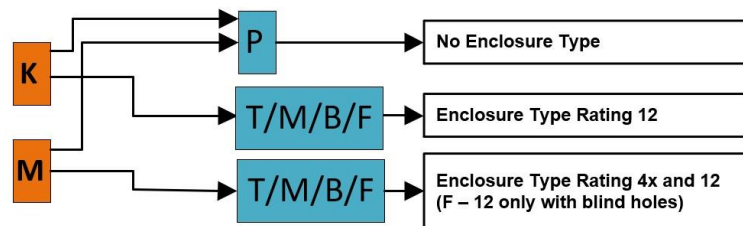
| Cat. No(s).    | Time Delay (TD) /Non-time delay (NTD) | Fuse Class | Fuse Current Rating (A) | SCCR (kA) | Voltage V AC |
|----------------|---------------------------------------|------------|-------------------------|-----------|--------------|
| All rated 13 A | TD                                    | 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  | -20   | °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)         | 16    | AWG  |
| Auxiliary wires Wire gauge              | 16    | AWG  |
| Encl. Type (UL 50/CSA C22.2 NO.94.1-15) | 12    |      |
| Flame resist. of the plug head (UL 94)  | HB    |      |
| AWM Style of cable                      | 2570  |      |

### 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                             | No                                 |      |
| 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                                     | 6 x 1,5mm²                       |        |
| Number of wires                                    | 4                                |        |
| conductor cross-section                            | 1,5                              | mm²    |
| max. main core diameter<br>incl. insulation D      | 2,4                              | mm     |
| Auxiliary wires Number                             | 2                                |        |
| Auxiliary wires Wire gauge                         | 1,5                              | mm²    |
| max. auxiliary core diameter<br>incl. insulation D | 2,4                              | mm     |
| outer shield                                       | No                               |        |
| internal shield                                    | No                               |        |
| color of the outer sheath                          | black similar to RAL 9005        |        |
| material of the sheath                             | PVC                              |        |
| coat colour main wires                             | black/green-yellow               |        |
| coat colour auxiliary wires                        | black                            |        |
| Identification of main wires                       | consecutive number imprint (1-3) |        |
| Identification of auxiliary<br>wires               | consecutive number imprint (4-5) |        |
| Core insulation material                           | PP                               |        |
| outside diameter                                   | 9,0 ±0,2                         | mm     |
| insulation resistance                              | >= 1000                          | MΩm/km |

#### 4.2.2 Mechanical properties

| DESIGNATION                     | VALUE | UNIT  |
|---------------------------------|-------|-------|
| installation type               | solid |       |
| dynamic value                   | DA0   |       |
| Minimum bending radius<br>fixed | 5     | xD mm |

|                |                        |       |   |                               |                  |      |
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## 5 Construction Destination

### 5.1 Pole diagram Target



### 5.2 Construction Destination

| DESIGNATION                                  | VALUE                            | UNIT          |
|--|----------------------------------|---------------|
| Size of construction                         | X-TEC 15                         |               |
| locking type                                 | Quick release fastener           |               |
| Type of plug-in contact (head 2)             | free plug-in socket              |               |
| Number of poles                              | 6                                |               |
| arrangement of the cable lead-in (head 2)    | straight                         |               |
| Material Seals                               | NBR                              |               |
| production type                              | overmoulded                      |               |
| Housing material                             | Technomelt                       |               |
| Material Insulating body                     | PA 6.6                           |               |
| Design of the electrical connection (head 2) | 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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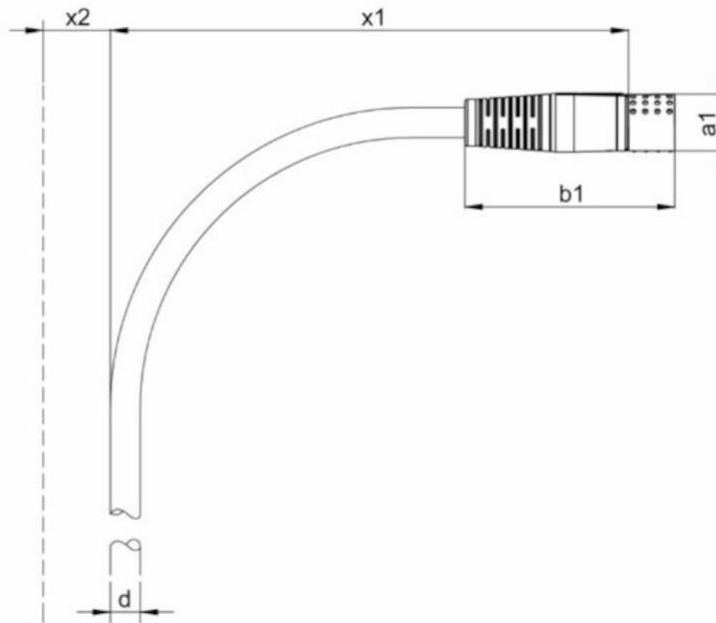
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### 5.3 Space requirement target

| DESIGNATION  | VALUE | UNIT |
|--|-------|------|
| (a1) max. plug diameter                                    | 22    | mm   |
| (b1) Plug length   | 78    | mm   |
| (x1) in mated condition                                    | 105,1 | mm   |
| (x2) additional distance to interfering contour plugged in | 18    | mm   |

### 5.4 Schematic diagram Target

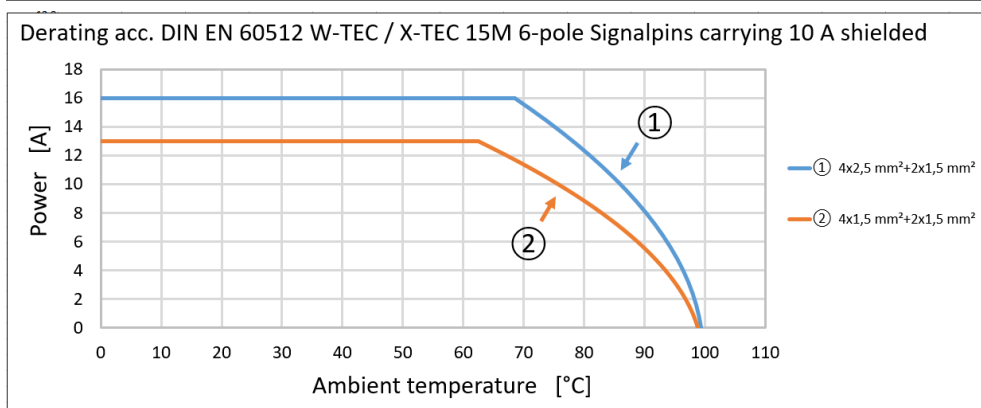
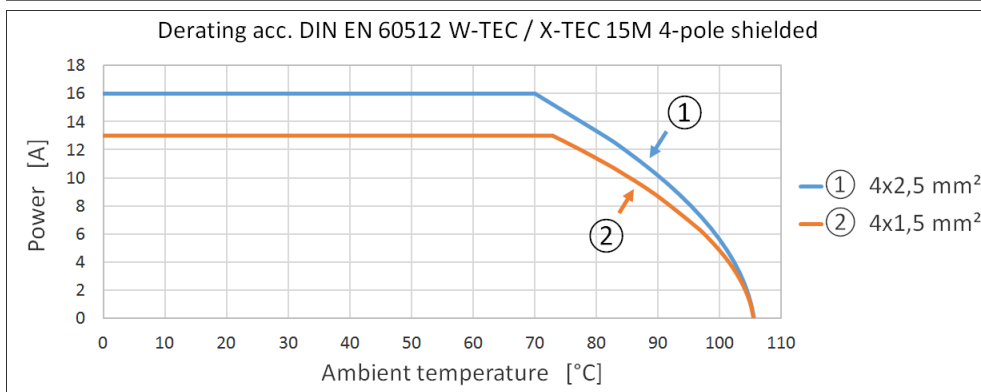
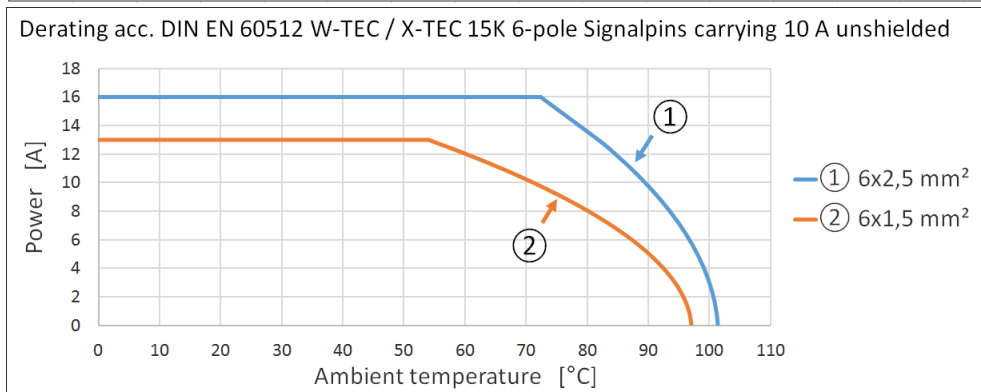
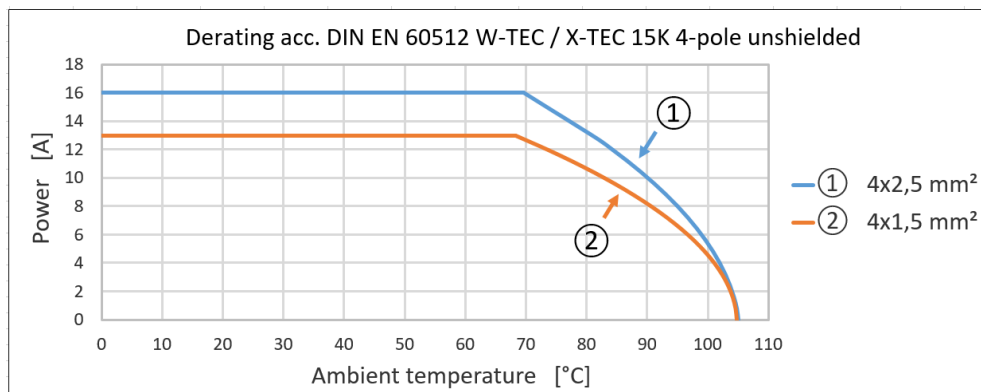


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## 6 Derating



|                |                        |       |
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## 7 Appendix Nomenclature

W - T E C 1 5 K - G C S - G C S - 6 1 4 1 4 - X X - T X -

### Family designation

- W-TEC
  - Cable Assemblies
  - Cable Fittings

### Connector Size

- 15
- 12

### Connector type

- K – plastic connector
- M – metal connector

### Male/Female contactor type

- G – straight
- F – angled left
- R – Angled right
- X – No male/female connector

### Male/Female contact type

- C – crimp
- X – No male/female connector
- T – No Male/female connector, additional terminal/ferrule crimped to wire ends, resistance welded wire ends, single wire lengths may be varying (Female Panel mounted)

### Male/Female contact plating

- S – Silver
- X – No male/female connector

### Cable Screen

- S – shielded cable
- X – cable not shielded

### Cable Type

- T – TPU
- P – PVC (applicable for cable not shielded variants only)

### Cable gland size

- XX – no cable gland

### Signal contact terminal cross-section

- 14 – AWG 14
- 16 – AWG 16
- XX – no signal contacts

### Power contact terminal cross-section

- 14 – AWG 14
- 16 – AWG 16

### Number of poles

- 4 – 4 poles
- 6 – 6 poles

1 1 1 9 8 8 7 - 0 0 1 0 0

### internal description, where xxxxxx can be 7 digit alphanumeric


internal description, where xxxxxx can be 7 digit alphanumeric

- Ferrules with insulating collar
- Uninsulated ferrules
- Terminal Connectors,
- Uninsulated Terminal Connectors,
- dust caps

and additional features which may be

- welded/compacted stranded wire ends
- additional stripping of wire
- additional stripping of cord isolation
- length difference between power, ground and signal wires

five digit number describing cable length in cm

|                |                        |       |   |                               |                  |      |
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