



# Safak®

*Perfect Connection...*



Catalog

[www.safakelektrik.com.tr](http://www.safakelektrik.com.tr)



**ROHS**  
COMPLIANT





## COMPANY PROFILE

**ŞAFAK ELEKTRİK A.Ş.** is established in **1980** and continues its operation with **90 employees** in **11.000 m<sup>2</sup>** area facilities located in Selimpasa, Istanbul and manufactures & dispatches **10 different product** groups and **1.500 products**. Şafak Elektrik A.Ş. is the first producer of the cable lugs and only producer with **UL certification**, in Turkey.

Our company supplies the following **product groups**: Compression Cable Lugs and Butt-connectors, Insulated – Non-insulated Cord-end Sleeves, Insulated – Non-insulated Terminals, Busbars & Mounting Rails, Cable Ties (*nylon, steel and coated steel*) and Accessories, Mechanical Hand Tools, Technical Sprays, Mechanical Crimpers, Cutters, Strippers, Hydraulic Crimping and Cutting Tools, Battery Operated Hydraulic Tools (*ELEC series*).

Cable Lugs are the main product group of Şafak Elektrik A.Ş. and our company holds 55% of the market as the leader. We produce and supply the following cable lug types : SE (European Norm) Cable Lugs, DIN 46235 Norm Cable Lugs, Narrow Palm Cable Lugs, Bell-mouthed Cable Lugs(Fine stranded cables) Q3 2017, ST Cable Lugs, DIN 46234 Norm Round and Welded Cable Lugs, Aluminum Cable Lugs(plus aluminum butt-connectors), Bi-metal AL/CU cable lugs etc.

Şafak Elektrik A.Ş. management principles:

- Producing high quality products and providing the best service to our customers.
- Supplying these products and services with efficient procedures at timely manner.
- Applying a systematic control mechanism upon design, production, functionality and quality criteria for our products and services.

### Quality Standards

**UL Certification - File Number: E 346154**

**IEC - 61238-1**

**TSE – TS 12123 / 07.01.1997**

**ISO 9001 : 2015**

**CE-Declaration of conformity – Directive of Low Voltage 2014/35/EU**

**EAC**

**RoHS Certificate**

# INDEX

1

## Cable Lugs and Butt-connectors

SE-EuroType .....	01
SE-EuroType 45° .....	03
SE-EuroType 90° .....	05
SE-EuroType Butt-connectors .....	07
Narrow Palm SE Type .....	08
Double Hole SE Type .....	09
DIN 46235 Type.....	12
DIN 46267 Type Butt-connectors .....	14
Aluminum.....	16
DIN 46267 Aluminum Butt-connectors .....	17

19

## Insulated - Non-insulated Cord-end Sleeves

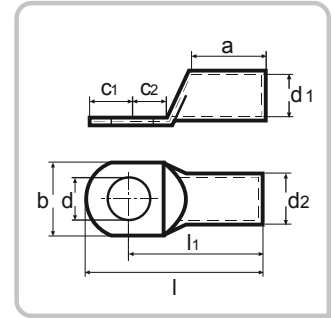
Cord-end Terminals French Color Norm ( DIN 46228 ) .....	19
Cord-end Terminals German Color Norm ( DIN 46228 ) .....	19
Insulated Twin Cord End Terminals ( DIN 46228 ) .....	20
Non-Insulated Cord End Terminals ( DIN 46228 ) .....	21

22

## Insulated – Non-insulated Terminals

Ring Type Insulated Cable Terminals ( DIN 46237 ).....	22
Fork Type Insulated Cable Terminals ( DIN 46237 ).....	22
Pin Type Insulated Cable Terminals .....	23
Blade Type Insulated Cable Terminals .....	23
Butt-splice Connectors Insulated Cable Terminals .....	23
DIN 46230 Type Non- Insulated Cable Terminals - (Welded).....	23
Male Terminals - Insulated Cable Terminals ( Extra Copper Sleeve ) .....	24
Female Terminals - Insulated Cable Terminals ( Extra Copper Sleeve ) .....	24
Female Disconnectors - Insulated Cable Terminals ( Extra Copper Sleeve ).....	24
Fully Insulated Female Disconnectors - Insulated Cable Terminals ( Extra Copper Sleeve ) .....	25
Fully Poliamid Insulated Female Disconnectors ( Extra Copper Sleeve ) .....	25
Male Disconnectors ( Extra Copper Sleeve ) .....	25
Piggy Back Disconnectors Insulated Cable Terminals ( Extra Copper Sleeve ).....	26
Flag Female Disconnectors - Insulated Cable Terminals .....	26

## SE (EuroType) Cable Lugs



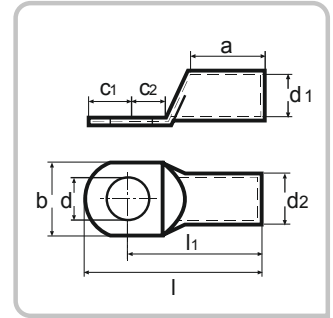
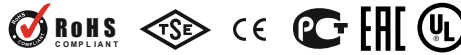
### Features

- Tempering of the cable lugs during the production process provides easy and more practical usage of the Şafak Cable Lugs.
  - Cable lugs are reheated at 700 degrees so that they do not break after the crimping process.
  - All of the Şafak Cable Lugs are tempered during production process.
- ⚠ These lugs must be crimped with SE series dies.

**Material** : EN 13600 standard copper  
**Surface Treatment** : Tin Plated

Product Code	Cross-Section mm <sup>2</sup>	Bolt Ø	Dimensions (mm)									Package Amount (Pcs)	Package Weight (-kg)
			d	d1	d2	l	l1	a	b	c1	c2		
SE 00606	6 mm <sup>2</sup>	M6	6,5	3,5	6,5	27,5	21	9	12,0	6,5	7,5	600	3,28
SE 00608		M8	8,5	3,5	6,5	33,0	23	9	15,0	10,0	10,0	600	3,51
SE 01005	10 mm <sup>2</sup>	M5	5,5	4,5	7	28,5	22	10	12	6,5	7,5	600	3,24
<b>SE 01006</b>		<b>M6</b>	<b>6,5</b>	<b>4,5</b>	<b>7</b>	<b>28,5</b>	<b>22</b>	<b>10</b>	<b>12</b>	<b>6,5</b>	<b>7,5</b>	<b>600</b>	<b>3,08</b>
SE 01008		M8	8,5	4,5	7	35	25	10	15	10	10	600	3,62
SE 01010		M10	10,5	4,5	7	39	27	10	17	12	12	600	3,97
SE 01606	16 mm <sup>2</sup>	M6	6,5	5,5	8,5	33,25	27	13	12	6,25	7,5	400	3,54
<b>SE 01608</b>		<b>M8</b>	<b>8,5</b>	<b>5,5</b>	<b>8,5</b>	<b>37,5</b>	<b>29</b>	<b>13</b>	<b>15</b>	<b>8,5</b>	<b>9,5</b>	<b>400</b>	<b>3,91</b>
SE 01610		M10	10,5	5,5	8,5	41,5	31	13	17	10,5	11,5	400	4,17
SE 02505	25 mm <sup>2</sup>	M5	5,5	7	10	37,5	30	15	14	7,5	7,5	250	3,24
SE 02506		M6	6,5	7	10	37,5	30	15	14	7,5	7,5	250	3,19
<b>SE 02508</b>		<b>M8</b>	<b>8,5</b>	<b>7</b>	<b>10</b>	<b>42</b>	<b>32</b>	<b>15</b>	<b>16</b>	<b>10</b>	<b>10</b>	<b>250</b>	<b>3,44</b>
SE 02510		M10	10,5	7	10	46	34	15	18	12	12	250	3,59
SE 02512		M12	13	7	10	48	35	15	19	13	13	250	3,52
SE 03506	35 mm <sup>2</sup>	M6	6,5	8,5	12	39,5	32	17	17	7,5	7,5	150	2,87
<b>SE 03508</b>		<b>M8</b>	<b>8,5</b>	<b>8,5</b>	<b>12</b>	<b>44</b>	<b>34</b>	<b>17</b>	<b>17</b>	<b>10</b>	<b>10</b>	<b>150</b>	<b>2,84</b>
SE 03510		M10	10,5	8,5	12	49	37	17	19	12	12	150	3,28
SE 03512		M12	13	8,5	12	51	38	17	21	13	13	150	3,27
SE 05006	50 mm <sup>2</sup>	M6	6,5	10	14	47	37	19	20	10	10	120	3,65
SE 05008		M8	8,5	10	14	47	37	19	20	10	10	120	3,54
<b>SE 05010</b>		<b>M10</b>	<b>10,5</b>	<b>10</b>	<b>14</b>	<b>51</b>	<b>39</b>	<b>19</b>	<b>20</b>	<b>12</b>	<b>12</b>	<b>120</b>	<b>3,82</b>
SE 05012		M12	13	10	14	56	43	19	23	13	13	120	3,98
SE 05014		M14	15	10	14	59,5	45	19	23	14,5	14,5	120	4,15
SE 05016		M16	17	10	14	62	46	19	28	16	16	120	4,28
SE 07008	70 mm <sup>2</sup>	M8	8,5	12	16,5	53	43	21	23	10	10	80	3,64
<b>SE 07010</b>		<b>M10</b>	<b>10,5</b>	<b>12</b>	<b>16,5</b>	<b>56</b>	<b>44</b>	<b>21</b>	<b>23</b>	<b>12</b>	<b>12</b>	<b>80</b>	<b>3,85</b>
SE 07012		M12	13	12	16,5	59	46	21	23	13	13	80	3,79
SE 07014		M14	15	12	16,5	62,5	48	21	23	14,5	14,5	80	3,98
SE 09508	95 mm <sup>2</sup>	M8	8,5	13,5	18	60	48	25	26	12	12	60	3,45
SE 09510		M10	10,5	13,5	18	60	48	25	26	12	12	60	3,43
<b>SE 09512</b>		<b>M12</b>	<b>13</b>	<b>13,5</b>	<b>18</b>	<b>62</b>	<b>49</b>	<b>25</b>	<b>26</b>	<b>13</b>	<b>13</b>	<b>60</b>	<b>3,38</b>
SE 09514		M14	15	13,5	18	65,5	51	25	26	14,5	14,5	60	3,48
SE 09516		M16	17	13,5	18	70	54	25	28	16	16	60	3,67

## SE (EuroType) Cable Lugs



### Features

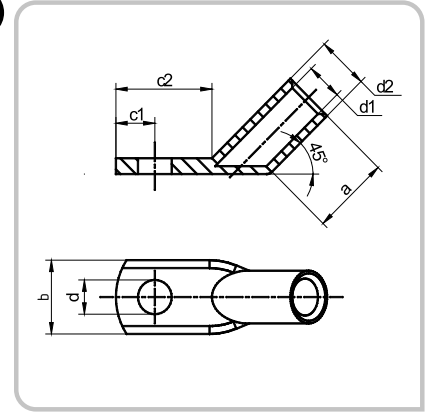
- Tempering of the cable lugs during the production process provides easy and more practical usage of the Şafak Cable Lugs.
  - Cable lugs are reheated at 700 degrees so that they do not break after the crimping process.
  - All of the Şafak Cable Lugs are tempered during production process.
- ⚠ These lugs must be crimped with SE series dies.

**Material** : EN 13600 standard copper  
**Surface Treatment** : Tin Plated

Product Code	Cross-Section mm <sup>2</sup>	Bolt Ø	Dimensions (mm)									Package Amount (Pcs)	Package Weight (~kg)
			d	d1	d2	l	l1	a	b	c1	c2		
SE 12008	<b>120 mm<sup>2</sup></b>	M8	8,5	15	19,5	65	51	26	28	14	14	50	3,37
SE 12010		M10	10,5	15	19,5	65	51	26	28	14	14	50	3,32
<b>SE 12012</b>		<b>M12</b>	<b>13</b>	<b>15</b>	<b>19,5</b>	<b>65</b>	<b>51</b>	<b>26</b>	<b>28</b>	<b>14</b>	<b>14</b>	<b>50</b>	<b>3,22</b>
SE 12014		M14	15	15	19,5	67	52	26	28	15	15	50	3,27
SE 12016		M16	17	15	19,5	70	54	26	30	16	16	50	3,38
SE 15008	<b>150 mm<sup>2</sup></b>	M8	8,5	16,5	21	70	56	30	31	14	14	30	2,4
SE 15010		M10	10,5	16,5	21	70	56	30	31	14	14	30	2,44
<b>SE 15012</b>		<b>M12</b>	<b>13</b>	<b>16,5</b>	<b>21</b>	<b>72</b>	<b>57</b>	<b>30</b>	<b>31</b>	<b>15</b>	<b>15</b>	<b>30</b>	<b>2,44</b>
SE 15014		M14	15	16,5	21	72	57	30	31	15	15	30	2,38
SE 15016		M16	17	16,5	21	74	58	30	31	16	16	30	2,43
SE 18510	<b>185 mm<sup>2</sup></b>	M10	10,5	19	24	83	65	30	35	18	18	25	2,96
SE 18512		M12	13	19	24	83	65	30	35	18	18	25	2,94
SE 18514		M14	15	19	24	83	65	30	35	18	18	25	2,91
<b>SE 18516</b>		<b>M16</b>	<b>17</b>	<b>19</b>	<b>24</b>	<b>83</b>	<b>65</b>	<b>30</b>	<b>35</b>	<b>18</b>	<b>18</b>	<b>25</b>	<b>2,86</b>
SE 24010	<b>240 mm<sup>2</sup></b>	M10	10,5	21	26	93,5	72	35	39	21,5	19	25	3,97
SE 24012		M12	13	21	26	93,5	72	35	39	21,5	19	25	3,93
SE 24014		M14	15	21	26	93,5	72	35	39	21,5	19	25	3,71
<b>SE 24016</b>		<b>M16</b>	<b>17</b>	<b>21</b>	<b>26</b>	<b>93,5</b>	<b>72</b>	<b>35</b>	<b>39</b>	<b>21,5</b>	<b>19</b>	<b>25</b>	<b>3,64</b>
SE 24020		M20	21	21	26	93,5	72	35	39	21,5	19	25	3,40
SE 30012	<b>300 mm<sup>2</sup></b>	M12	13	23,4	28,6	111	87	44	43	24	24	10	2,35
<b>SE 30016</b>		<b>M16</b>	<b>17</b>	<b>23,4</b>	<b>28,6</b>	<b>111</b>	<b>87</b>	<b>44</b>	<b>43</b>	<b>24</b>	<b>24</b>	<b>10</b>	<b>2,35</b>
<b>SE 40020</b>	<b>400 mm<sup>2</sup></b>	<b>M20</b>	<b>21</b>	<b>27</b>	<b>34</b>	<b>114</b>	<b>90</b>	<b>44</b>	<b>49</b>	<b>24</b>	<b>24</b>	<b>5</b>	<b>1,57</b>

- The cable lugs for which the cross sections are written with bold letters are standard production. Please ask the stock quantity for the other bolt types
- Our goods are manufactured of electrolytic copper(E-Cu), they are full tempered, welded and min. 3 micron tin plated.
- Our company reserves the right of changing the dimension of the products without any prior notification.

## SE (EuroType) 45° Cable Lugs



### Features

- Tempering of the cable lugs during the production process provides easy and more practical usage of the Şafak Cable Lugs.
- Cable lugs are reheated at 700 degrees so that they do not break after the crimping process.
- All of the Şafak Cable Lugs are tempered during production process.
- ⚠ These lugs must be crimped with SE series dies.

**Material** : EN 13600 standard copper

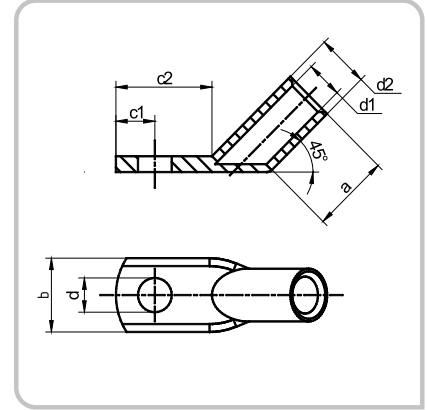
**Surface Treatment** : Tin Plated

Product Code	Cross-Section mm <sup>2</sup>	Bolt Ø	Dimensions (mm)							Package Amount (Pcs)	Package Weight (~kg)
			d	d1	d2	a	b	c1	c2		
SE45 01005	10 mm <sup>2</sup>	M5	5,5	4,5	7,0	10,0	12,0	6,5	16,5	600	3,62
<b>SE45 01006</b>		M6	<b>6,5</b>	<b>4,5</b>	<b>7,0</b>	<b>10,0</b>	<b>12,0</b>	<b>6,5</b>	<b>16,5</b>	<b>600</b>	<b>3,62</b>
SE45 01008		M8	8,5	4,5	7,0	10,0	15,0	10,0	23,0	600	3,92
SE45 01606	16 mm <sup>2</sup>	M6	6,5	5,5	8,5	13,0	12,0	7,5	18,5	400	3,94
<b>SE45 01608</b>		M8	<b>8,5</b>	<b>5,5</b>	<b>8,5</b>	<b>13,0</b>	<b>15,0</b>	<b>10,0</b>	<b>23,0</b>	<b>400</b>	<b>4,34</b>
SE45 01610		M10	10,5	5,5	8,5	13,0	17,0	12,0	27,0	400	4,78
SE45 02506	25 mm <sup>2</sup>	M6	6,5	7,0	10,0	15,0	14,0	7,5	18,5	250	3,61
<b>SE45 02508</b>		M8	<b>8,5</b>	<b>7,0</b>	<b>10,0</b>	<b>15,0</b>	<b>16,0</b>	<b>10,0</b>	<b>23,0</b>	<b>250</b>	<b>3,84</b>
SE45 02510		M10	10,5	7,0	10,0	15,0	18,0	12,0	27,0	250	4,06
SE45 03506	35 mm <sup>2</sup>	M6	6,5	8,5	12,0	17,0	17,0	7,5	18,5	150	3,69
<b>SE45 03508</b>		M8	<b>8,5</b>	<b>8,5</b>	<b>12,0</b>	<b>17,0</b>	<b>17,0</b>	<b>10,0</b>	<b>23,0</b>	<b>150</b>	<b>3,98</b>
SE45 03510		M10	10,5	8,5	12,0	17,0	19,0	12,0	27,0	150	4,01
SE45 05006	50 mm <sup>2</sup>	M6	6,5	10,0	14,0	19,0	20,0	10,0	23,0	90	3,21
SE45 05008		M8	8,5	10,0	14,0	19,0	20,0	10,0	23,0	90	3,13
<b>SE45 05010</b>		M10	<b>10,5</b>	<b>10,0</b>	<b>14,0</b>	<b>19,0</b>	<b>20,0</b>	<b>12,0</b>	<b>28,0</b>	<b>90</b>	<b>3,31</b>
SE45 05012		M12	10,5	10,0	14,0	19,0	20,0	12,0	28,0	90	3,48
SE45 07008	70 mm <sup>2</sup>	M8	8,5	12,0	16,5	21,0	23,0	10,0	24,0	65	3,28
<b>SE45 07010</b>		M10	<b>10,5</b>	<b>12,0</b>	<b>16,5</b>	<b>21,0</b>	<b>23,0</b>	<b>12,0</b>	<b>28,0</b>	<b>65</b>	<b>3,54</b>
SE45 07012		M12	10,5	12,0	16,5	21,0	23,0	12,0	28,0	65	3,57
SE45 09508	95 mm <sup>2</sup>	M8	8,5	13,5	18,0	25,0	26,0	12,0	26,0	50	3,19
SE45 09510		M10	10,5	13,5	18,0	25,0	26,0	12,0	29,0	50	3,2
<b>SE45 09512</b>		M12	<b>10,5</b>	<b>13,5</b>	<b>18,0</b>	<b>25,0</b>	<b>26,0</b>	<b>12,0</b>	<b>29,0</b>	<b>50</b>	<b>3,38</b>
SE45 12010	120 mm <sup>2</sup>	M10	10,5	15,0	19,5	26,0	28,0	14,0	31,0	40	3,00
<b>SE45 12012</b>		M12	<b>13,0</b>	<b>15,0</b>	<b>19,5</b>	<b>26,0</b>	<b>28,0</b>	<b>14,0</b>	<b>32,0</b>	<b>40</b>	<b>2,99</b>
SE45 15010	150 mm <sup>2</sup>	M10	10,5	16,5	21,0	30,0	31,0	14,0	31,0	25	2,51
<b>SE45 15012</b>		M12	<b>13,0</b>	<b>16,5</b>	<b>21,0</b>	<b>30,0</b>	<b>31,0</b>	<b>15,0</b>	<b>33,0</b>	<b>25</b>	<b>2,27</b>
SE45 15016		M16	13,0	16,5	21,0	30,0	31,0	15,0	33,0	25	2,55

- Our goods are manufactured of electrolytic copper(E-Cu), they are full tempered, welded and min. 3 micron tin plated.

- Our company reserves the right of changing the dimension of the products without any prior notification

## SE (EuroType) 45° Cable Lugs



### Features

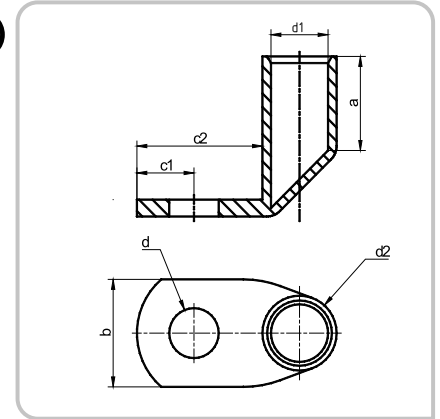
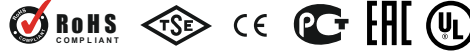
- Tempering of the cable lugs during the production process provides easy and more practical usage of the Şafak Cable Lugs.
  - Cable lugs are reheated at 700 degrees so that they do not break after the crimping process.
  - All of the Şafak Cable Lugs are tempered during production process.
- ⚠ These lugs must be crimped with SE series dies.

**Material** : EN 13600 standard copper  
**Surface Treatment** : Tin Plated

Product Code	Cross-Section mm <sup>2</sup>	Bolt	Dimensions (mm)								Package Amount (Pcs)	Package Weight (-kg)
			d	d1	d2	a	b	c1	c2			
SE45 18510	185 mm <sup>2</sup>	M10	10,5	19,0	24,0	30,0	35,0	18,0	40,0	22	3,05	
SE45 18512		M12	13,0	19,0	24,0	30,0	35,0	18,0	40,0	22	2,90	
<b>SE45 18516</b>	240 mm <sup>2</sup>	<b>M16</b>	<b>13,0</b>	<b>19,0</b>	<b>24,0</b>	<b>30,0</b>	<b>35,0</b>	<b>18,0</b>	<b>40,0</b>	<b>22</b>	<b>2,60</b>	
SE45 24010		M10	10,5	21,0	26,0	35,0	39,0	21,5	43,5	18	3,20	
SE45 24012		M12	13,0	21,0	26,0	35,0	39,0	21,5	43,5	18	3,18	
<b>SE45 24016</b>		<b>M16</b>	<b>13,0</b>	<b>21,0</b>	<b>26,0</b>	<b>35,0</b>	<b>39,0</b>	<b>21,5</b>	<b>43,5</b>	<b>18</b>	<b>2,99</b>	

- Our goods are manufactured of electrolytic copper(E-Cu), they are full tempered, welded and min. 3 micron tin plated.
- Our company reserves the right of changing the dimension of the products without any prior notification

## SE (EuroType) 90° Cable Lugs



### Features

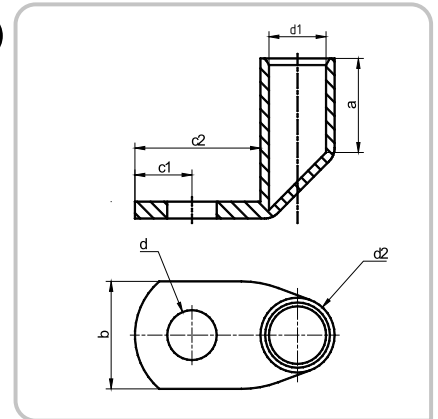
- Tempering of the cable lugs during the production process provides easy and more practical usage of the Şafak Cable Lugs.
  - Cable lugs are reheated at 700 degrees so that they do not break after the crimping process.
  - All of the Şafak Cable Lugs are tempered during production process.
- ⚠ These lugs must be crimped with SE series dies.

**Material** : EN 13600 standard copper  
**Surface Treatment** : Tin Plated

Product Code	Cross-Section mm <sup>2</sup>	Bolt	Dimensions (mm)							Package Amount (Pcs)	Package Weight (-kg)
			d	d1	d2	a	b	c1	c2		
SE90 01005	10 mm <sup>2</sup>	M5	5,5	4,5	7,0	10,0	12,0	6,5	16,5	600	3,84
<b>SE90 01006</b>		M6	<b>6,5</b>	<b>4,5</b>	<b>7,0</b>	<b>10,0</b>	<b>12,0</b>	<b>6,5</b>	<b>16,5</b>	<b>600</b>	<b>3,77</b>
SE90 01008		M8	8,5	4,5	7,0	10,0	15,0	10,0	23,0	600	4,46
SE90 01606	16 mm <sup>2</sup>	M6	6,5	5,5	8,5	13,0	12,0	7,5	18,5	400	4,14
<b>SE90 01608</b>		M8	<b>8,5</b>	<b>5,5</b>	<b>8,5</b>	<b>13,0</b>	<b>15,0</b>	<b>10,0</b>	<b>23,0</b>	<b>400</b>	<b>4,42</b>
SE90 01610		M10	10,5	5,5	8,5	13,0	17,0	12,0	27,0	400	4,78
SE90 02506	25 mm <sup>2</sup>	M6	6,5	7,0	10,0	15,0	14,0	7,5	18,5	250	3,64
<b>SE90 02508</b>		M8	<b>8,5</b>	<b>7,0</b>	<b>10,0</b>	<b>15,0</b>	<b>16,0</b>	<b>10,0</b>	<b>23,0</b>	<b>250</b>	<b>3,93</b>
SE90 02510		M10	10,5	7,0	10,0	15,0	18,0	12,0	27,0	250	4,09
SE90 03506	35 mm <sup>2</sup>	M6	6,5	8,5	12,0	17,0	17,0	7,5	18,5	150	3,38
<b>SE90 03508</b>		M8	<b>8,5</b>	<b>8,5</b>	<b>12,0</b>	<b>17,0</b>	<b>17,0</b>	<b>10,0</b>	<b>23,0</b>	<b>150</b>	<b>3,71</b>
SE90 03510		M10	10,5	8,5	12,0	17,0	19,0	12,0	27,0	150	3,82
SE90 05006	50 mm <sup>2</sup>	M6	6,5	10,0	14,0	19,0	20,0	10,0	23,0	90	3,34
SE90 05008		M8	8,5	10,0	14,0	19,0	20,0	10,0	23,0	90	3,28
<b>SE90 05010</b>		M10	<b>10,5</b>	<b>10,0</b>	<b>14,0</b>	<b>19,0</b>	<b>20,0</b>	<b>12,0</b>	<b>28,0</b>	<b>90</b>	<b>3,41</b>
SE90 05012		M12	10,5	10,0	14,0	19,0	20,0	12,0	28,0	90	3,47
SE90 07008	70 mm <sup>2</sup>	M8	8,5	12,0	16,5	21,0	23,0	10,0	24,0	65	3,13
<b>SE90 07010</b>		M10	<b>10,5</b>	<b>12,0</b>	<b>16,5</b>	<b>21,0</b>	<b>23,0</b>	<b>12,0</b>	<b>28,0</b>	<b>65</b>	<b>3,34</b>
SE90 07012		M12	10,5	12,0	16,5	21,0	23,0	12,0	28,0	65	3,23
SE90 09508	95 mm <sup>2</sup>	M8	8,5	13,5	18,0	25,0	26,0	12,0	26,0	50	3,06
SE90 09510		M10	10,5	13,5	18,0	25,0	26,0	12,0	29,0	50	3,05
<b>SE90 09512</b>		M12	<b>10,5</b>	<b>13,5</b>	<b>18,0</b>	<b>25,0</b>	<b>26,0</b>	<b>12,0</b>	<b>29,0</b>	<b>50</b>	<b>3,07</b>
SE90 12010	120 mm <sup>2</sup>	M10	10,5	15,0	19,5	26,0	28,0	14,0	31,0	40	3,02
<b>SE90 12012</b>		M12	<b>13,0</b>	<b>15,0</b>	<b>19,5</b>	<b>26,0</b>	<b>28,0</b>	<b>14,0</b>	<b>32,0</b>	<b>40</b>	<b>3,00</b>
SE90 15010	150 mm <sup>2</sup>	M10	10,5	16,5	21,0	30,0	31,0	14,0	31,0	30	2,29
<b>SE90 15012</b>		M12	<b>13,0</b>	<b>16,5</b>	<b>21,0</b>	<b>30,0</b>	<b>31,0</b>	<b>15,0</b>	<b>33,0</b>	<b>30</b>	<b>2,30</b>
SE90 15016		M16	13,0	16,5	21,0	30,0	31,0	15,0	33,0	30	2,33



## SE (EuroType) 90° Cable Lugs



### Features

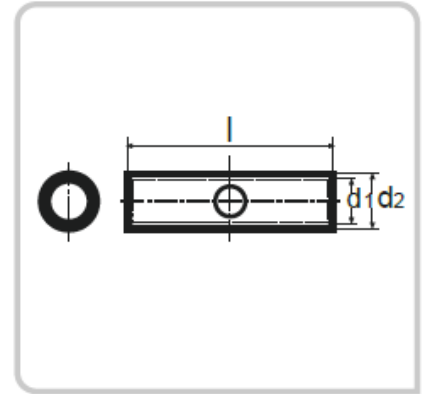
- Tempering of the cable lugs during the production process provides easy and more practical usage of the Şafak Cable Lugs.
- Cable lugs are reheated at 700 degrees so that they do not break after the crimping process.
- All of the Şafak Cable Lugs are tempered during production process.
- ⚠ These lugs must be crimped with SE series dies.

**Material** : EN 13600 standard copper  
**Surface Treatment** : Tin Plated

Product Code	Cross-Section mm <sup>2</sup>	Bolt Ø	Dimensions (mm)							Package Amount (Pcs)	Package Weight (-kg)
			d	d1	d2	a	b	c1	c2		
SE90 18510	185 mm <sup>2</sup>	M10	10,5	19,0	24,0	30,0	35,0	18,0	40,0	30	2,98
SE90 18512		M12	13,0	19,0	24,0	30,0	35,0	18,0	40,0	30	2,97
<b>SE90 18516</b>		<b>M16</b>	<b>13,0</b>	<b>19,0</b>	<b>24,0</b>	<b>30,0</b>	<b>35,0</b>	<b>18,0</b>	<b>40,0</b>	<b>30</b>	<b>2,98</b>
SE90 24010	240 mm <sup>2</sup>	M10	10,5	21,0	26,0	35,0	39,0	21,5	43,5	25	3,06
SE90 24012		M12	13,0	21,0	26,0	35,0	39,0	21,5	43,5	25	3,04
<b>SE90 24016</b>		<b>M16</b>	<b>13,0</b>	<b>21,0</b>	<b>26,0</b>	<b>35,0</b>	<b>39,0</b>	<b>21,5</b>	<b>43,5</b>	<b>25</b>	<b>2,99</b>

- Our goods are manufactured of electrolytic copper(E-Cu), they are full tempered, welded and min. 3 micron tin plated.
- Our company reserves the right of changing the dimension of the products without any prior notification

## SE (EuroType) Butt-connectors



### Features

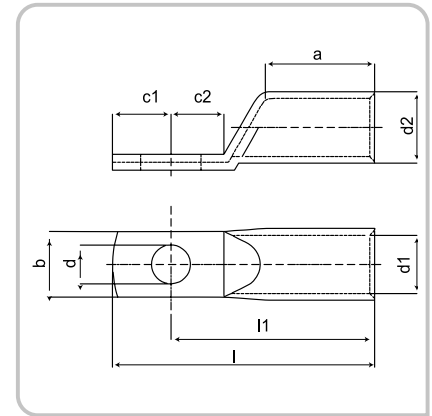
- Tempering of the cable lugs during the production process provides easy and more practical usage of the Şafak Cable Lugs.
- Cable lugs are reheated at 700 degrees so that they do not break after the crimping process.
- All of the Şafak Cable Lugs are tempered during production process.
- ⚠ These butt-connectors must be crimped with SE series dies.

**Material** : EN 13600 standard copper  
**Surface Treatment** : Tin Plated

Product Code	Cross-Section mm <sup>2</sup>	Dimensions (mm)			Package Amount (Pcs)	Package Weight (-kg)
		d1	d2	L		
SE EM010	<b>10 mm<sup>2</sup></b>	4,5	7	30,5	600	4,32
SE EM016	<b>16 mm<sup>2</sup></b>	5,5	8,5	35	400	4,00
SE EM025	<b>25 mm<sup>2</sup></b>	7	10	40	250	3,52
SE EM035	<b>35 mm<sup>2</sup></b>	8,5	12	45	150	3,36
SE EM050	<b>50 mm<sup>2</sup></b>	10	14	50	90	3,02
SE EM070	<b>70 mm<sup>2</sup></b>	12	16,5	55	60	2,95
SE EM095	<b>95 mm<sup>2</sup></b>	13,5	18	60	50	2,90
SE EM120	<b>120 mm<sup>2</sup></b>	15	19,5	65	40	2,80
SE EM150	<b>150 mm<sup>2</sup></b>	16,5	21	70	25	2,10
SE EM185	<b>185 mm<sup>2</sup></b>	19	24	75	20	2,02
SE EM240	<b>240 mm<sup>2</sup></b>	21	26	85	18	2,76
SE EM300	<b>300 mm<sup>2</sup></b>	23,5	29,5	100	5	2,30
SE EM400	<b>400 mm<sup>2</sup></b>	27,0	34,0	100	5	2,65

- Our goods are manufactured of electrolytic copper(E-Cu), they are full tempered, welded and min. 3 micron tin plated.
- Our company reserves the right of changing the dimension of the products without any prior notification

## Narrow Palm SE Type Cable Lugs ( For Circuit Breakers )



### Features

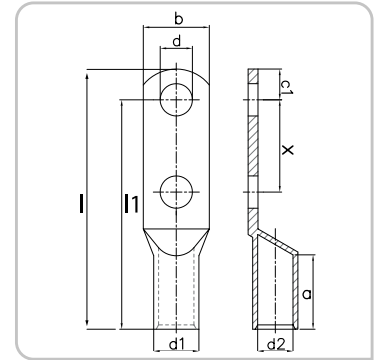
- Tempering of the cable lugs during the production process provides easy and more practical usage of the Şafak Cable Lugs.
- Cable lugs are reheated at 700 degrees so that they do not break after the crimping process.
- All of the Şafak Cable Lugs are tempered during production process.
- ⚠ These lugs must be crimped with SE series dies.

**Material** : EN 13600 standard copper  
**Surface Treatment** : Tin Plated

Product Code	Cross-Section mm <sup>2</sup>	Bolt Ø	Dimensions (mm)									Package Amount (Pcs)	Package Weight (~kg)
			d	d1	d2	l	l1	a	b	c1	c2		
DG 03506	35 mm <sup>2</sup>	M6	6,5	8,5	12	39,5	32	17	15	7,5	7,5	150	2,90
DG 05006		M6	6,5	10	14	47	37	19	15	10	10	120	3,80
DG 05008	50 mm <sup>2</sup>	M8	8,5	10	14	47	37	19	17	10	10	120	3,80
DG 05010		M10	10,5	10	14	51	39	19	19	12	12	120	3,70
DG 07008	70 mm <sup>2</sup>	M8	8,5	12	16,5	53	43	21	17	10	10	80	3,50
DG 07010		M10	10,5	12	16,5	56	44	21	19	12	12	80	3,40
DG 07012		M12	13,0	12	16,5	59	46	21	19	13	13	80	3,80
DG 09508	95 mm <sup>2</sup>	M8	8,5	13,5	18	60	48	25	19	12	12	60	3,50
DG 09510		M10	10,5	13,5	18	60	48	25	19	12	12	60	3,40
DG 09512		M12	13,0	13,5	18	62	49	25	19	13	13	60	3,20
DG 12008	120 mm <sup>2</sup>	M8	8,5	15	19,5	65	51	26	19	14	14	50	3,10
DG 12010		M10	10,5	15	19,5	65	51	26	19	14	14	50	3,10
DG 12012		M12	13,0	15	19,5	65	51	26	19	14	14	50	3,10
DG 15008	150 mm <sup>2</sup>	M8	8,5	16,5	21	70	56	30	19	14	14	30	2,40
DG 15010		M10	10,5	16,5	21	70	56	30	19	14	14	30	2,40
DG 15012		M12	13,0	16,5	21	72	57	30	19	15	15	30	2,30
DG 18510	185 mm <sup>2</sup>	M10	10,5	19	24	83	65	30	24,5	18	18	25	2,90
DG 18512		M12	13,0	19	24	83	65	30	31	18	18	25	2,90
DG 18516		M16	17,0	19	24	83	65	30	31	18	18	25	2,90
DG 24010	240 mm <sup>2</sup>	M10	10,5	21	26	83,5	72	35	31	11,5	19	25	3,70
DG 24012		M12	13,0	21	26	93,5	72	35	31	21,5	19	25	3,70
DG 24016		M16	17,0	21	26	93,5	72	35	31	21,5	19	25	3,70

\* Our goods are manufactured of electrolytic copper(E-Cu), they are full tempered, welded and min. 3 micron tin plated.  
 \* Our company reserves the right of changing the dimension of the products without any prior notification.  
 \* It can be produced as 90 degrees in case of special order.

## Double Hole SE Cable Lugs



### Features

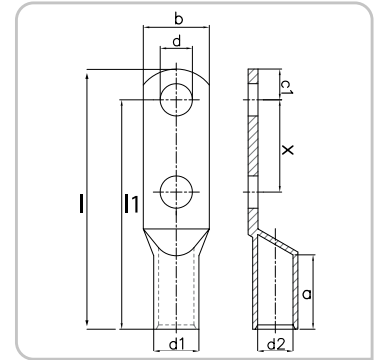
- Tempering of the cable lugs during the production process provides easy and more practical usage of the Şafak Cable Lugs.
- Cable lugs are reheated at 700 degrees so that they do not break after the crimping process.
- All of the Şafak Cable Lugs are tempered during production process.
- ⚠ These lugs must be crimped with ST series dies.

**Material** : EN 13600 standard copper  
**Surface Treatment** : Tin Plated

Product Code	Cross Section mm <sup>2</sup>	Bolt Ø	Dimensions (mm)								
			d	d1	d2	l	l1	a	b	c1	x
CD 01606-16	16 mm <sup>2</sup>	M6	6,5	5,5	8,5	53,0	43,0	20,0	12,0	10,0	16,0
CD 01606-25		M6	6,5	5,5	8,5	62,0	52,0	20,0	12,0	10,0	25,0
CD 02506-16	25 mm <sup>2</sup>	M6	6,5	7,0	10,0	54,0	44,0	20,0	14,0	10,0	16,0
CD 02506-25		M6	6,5	7,0	10,0	63,0	53,0	20,0	14,0	10,0	25,0
CD 02508-16		M8	8,5	7,0	10,0	54,0	44,0	20,0	14,0	10,0	16,0
CD 02508-25		M8	8,5	7,0	10,0	63,0	53,0	20,0	14,0	10,0	25,0
CD 03508-16	35 mm <sup>2</sup>	M8	8,5	8,5	12,0	62,0	52,0	20,0	14,0	10,0	16,0
CD 03508-25		M8	8,5	8,5	12,0	71,0	61,0	20,0	18,0	10,0	25,0
CD 03508-40		M8	8,5	8,5	12,0	86,0	76,0	20,0	18,0	10,0	40,0
CD 03510-25		M10	10,5	8,5	12,0	71,0	61,0	20,0	18,0	10,0	25,0
CD 03510-40	M10	10,5	8,5	12,0	86,0	76,0	20,0	18,0	10,0	40,0	
CD 05006-25	50 mm <sup>2</sup>	M6	6,5	10,0	14,0	69,0	59,0	28,0	21,0	10,0	25,0
CD 05006-40		M6	6,5	10,0	14,0	84,0	74,0	28,0	21,0	10,0	40,0
CD 05008-25		M8	8,5	10,0	14,0	69,0	59,0	28,0	21,0	10,0	25,0
CD 05008-40		M8	8,8	10,0	14,0	84,0	74,0	28,0	21,0	10,0	40,0
CD 05010-25		M10	10,5	10,0	14,0	75,0	59,0	28,0	21,0	16,0	25,0
CD 05010-40		M10	10,5	10,0	14,0	90,0	74,0	28,0	21,0	16,0	40,0
CD 05012-25		M12	13,0	10,0	14,0	75,0	59,0	28,0	23,0	16,0	25,0
CD 05012-40		M12	13,0	10,0	14,0	90,0	74,0	28,0	23,0	16,0	40,0
CD 07008-25	70 mm <sup>2</sup>	M8	8,5	12,0	16,5	76,0	66,0	28,0	23,0	10,0	25,0
CD 07008-40		M8	8,5	12,0	16,5	91,0	81,0	28,0	23,0	10,0	40,0
CD 07010-25		M10	10,5	12,0	16,5	82,0	66,0	28,0	23,0	16,0	25,0
CD 07010-40		M10	10,5	12,0	16,5	97,0	81,0	28,0	23,0	16,0	40,0
CD 07012-25		M12	13,0	12,0	16,5	76,0	60,0	28,0	23,0	16,0	25,0
CD 07012-40		M12	13,0	12,0	16,5	91,0	75,0	28,0	23,0	16,0	40,0
CD 07012-45	M12	13,0	12,0	16,5	96,0	80,0	28,0	23,0	16,0	45,0	
CD 07012-60	M12	13,0	12,0	16,5	111,0	95,0	28,0	23,0	16,0	60,0	

- Our goods are manufactured of electrolytic copper(E-Cu), they are full tempered, welded and min. 3 micron tin plated.  
- Our company reserves the right of changing the dimension of the products without any prior notification.

## Double Hole SE Cable Lugs



### Features





















- Tempering of the cable lugs during the production process provides easy and more practical usage of the Şafak Cable Lugs.
- Cable lugs are reheated at 700 degrees so that they do not break after the crimping process.
- All of the Şafak Cable Lugs are tempered during production process.
- ⚠ These lugs must be crimped with ST series dies.

**Material** : EN 13600 standard copper  
**Surface Treatment** : Tin Plated

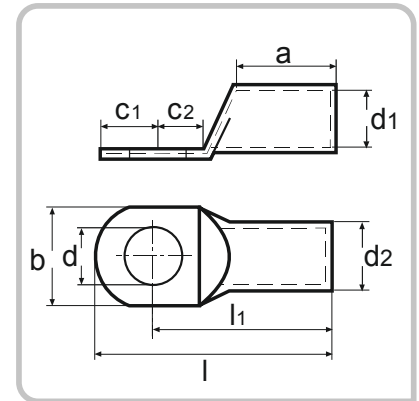
Product Code	Cross Section mm <sup>2</sup>	Bolt Ø	Dimensions (mm)								
			d	d1	d2	l	l1	a	b	c1	x
CD 09510-25	95 mm <sup>2</sup>	M10	10,5	13,5	18,0	87,0	71,0	35,0	26,0	16,0	25,0
CD 09510-40		M10	10,5	13,5	18,0	102,0	86,0	35,0	26,0	16,0	40,0
CD 09512-25		M12	13,0	13,5	18,0	87,0	71,0	35,0	26,0	16,0	25,0
CD 09512-40		M12	13,0	13,5	18,0	102,0	86,0	35,0	26,0	16,0	40,0
CD 09512-40		M12	13,0	13,5	18,0	107,0	91,0	35,0	26,0	16,0	45,0
CD 09512-60		M12	13,0	13,5	18,0	122,0	106,0	35,0	26,0	16,0	60,0
CD 12012-25	120 mm <sup>2</sup>	M12	13,0	15,0	19,5	87,0	71,0	35,0	28,0	16,0	25,0
CD 12012-45		M12	13,0	15,0	19,5	102,0	86,0	35,0	28,0	16,0	40,0
CD 12012-45		M12	13,0	15,0	19,5	107,0	91,0	35,0	28,0	16,0	45,0
CD 12012-60		M12	13,0	15,0	19,5	122,0	106,0	35,0	28,0	16,0	60,0
CD 12016-40		M16	17,0	15,0	19,5	105,0	86,0	35,0	28,0	19,0	40,0
CD 12016-50		M16	17,0	15,0	19,5	115,0	96,0	35,0	28,0	19,0	50,0
CD 15012-25	150 mm <sup>2</sup>	M12	13,0	16,5	21,0	90,0	74,0	35,0	31,0	16,0	25,0
CD 15012-40		M12	13,0	16,5	21,0	105,0	89,0	35,0	31,0	16,0	40,0
CD 15012-45		M12	13,0	16,5	21,0	110,0	94,0	35,0	31,0	16,0	45,0
CD 15012-50		M12	13,0	16,5	21,0	115,0	99,0	35,0	31,0	16,0	50,0
CD 15012-60		M12	13,0	16,5	21,0	125,0	109,0	35,0	31,0	16,0	60,0
CD 15016-40		M16	17,0	16,5	21,0	108,0	89,0	35,0	31,0	19,0	40,0
CD 15016-50	M16	17,0	16,5	21,0	118,0	99,0	35,0	31,0	19,0	50,0	
CD 18512-25	185 mm <sup>2</sup>	M12	13,0	19,0	24,0	96,0	80,0	40,0	35,0	16,0	25,0
CD 18512-40		M12	13,0	19,0	24,0	111,0	95,0	40,0	35,0	16,0	40,0
CD 18512-50		M12	13,0	19,0	24,0	121,0	105,0	40,0	35,0	16,0	50,0
CD 18516-40		M16	17,0	19,0	24,0	114,0	95,0	40,0	35,0	19,0	40,0
CD 18516-50		M16	17,0	19,0	24,0	124,0	105,0	40,0	35,0	19,0	50,0
CD 24012-25		240 mm <sup>2</sup>	M12	13,0	21,0	26,0	97,0	81,0	40,0	38,0	16,0
CD 24012-40	M12		13,0	21,0	26,0	112,0	96,0	40,0	38,0	16,0	40,0
CD 24012-50	M12		13,0	21,0	26,0	122,0	106,0	40,0	38,0	16,0	50,0
CD 24016-40	M16		17,0	21,0	26,0	115,0	96,0	40,0	38,0	19,0	40,0
CD 24016-50	M16		17,0	21,0	26,0	125,0	106,0	40,0	38,0	19,0	50,0

- Our goods are manufactured of electrolytic copper(E-Cu), they are full tempered, welded and min. 3 micron tin plated.
- Our company reserves the right of changing the dimension of the products without any prior notification.

### RECOMMENDED HAND TOOLS

"Crimping Range mm <sup>2</sup> "	Tool Code	"Mechanical Crimping Tools"	"Mechanical Crimping Tools with Revolving Dies"	"Hydraulic Crimping Tools"	"Hydraulic Crimping Heads"	"Battery Operated Hydraulic Crimping Tools"	"Crimping Profile"	Page
6-50	SP-0650		*					<b>P65</b>
6-240	SFK-60MINI ELEC					*		<b>P77</b>
6-300	SFK-60MINI S ELEC					*		<b>P78</b>
	SFK-60 ELEC					*		<b>P79</b>
	SFK-60S ELEC					*		<b>P80</b>
10-120	SP-120	*						<b>P65</b>
	SP-10120		*					<b>P65</b>
10-240	S-6			*				<b>P71</b>
10-300	SP-300	*						<b>P65</b>
	S-60			*				<b>P71</b>
16-300	SC-130			*				<b>P71</b>
	SXC-130				*			<b>P72</b>
	SFK-120 ELEC					*		<b>P81</b>
16-400	SC-130L			*				<b>P71</b>
	SXC-130L				*			<b>P72</b>
	SFK-120L ELEC					*		<b>P81</b>
	SHK-25				*			<b>P72</b>
	SHK-45				*			<b>P73</b>
25-150	SP-25150		*					<b>P65</b>
16-400	SHK-110				*			<b>P73</b>

## DIN 46235 Type Cable Lugs



### Features

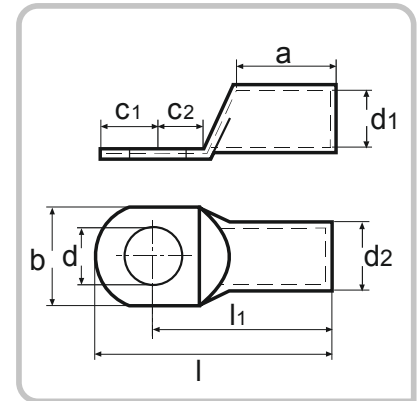
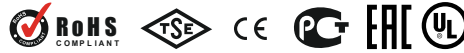
- Tempering of the cable lugs during the production process provides easy and more practical usage of the Şafak Cable Lugs.
- Cable lugs are reheated at 700 degrees so that they do not break after the crimping process.
- All of the Şafak Cable Lugs are tempered during production process.
- ▲ You must crimp DIN Norm Cable Lugs with DIN Norm Dies

**Material** : EN 13600 standard copper  
**Surface Treatment** : Tin Plated

Product Code	Cross-Section mm <sup>2</sup>	Bolt Ø	Dimensions (mm)								Package Amount (Pcs)	Package Weight (-kg)	
			d	d1	d2	l	l1	a	b	c1			c2
<b>DIN 01005</b>	<b>10 mm<sup>2</sup></b>	<b>M5</b>	<b>5,3</b>	<b>4,5</b>	<b>6</b>	<b>34</b>	<b>27</b>	<b>10</b>	<b>9</b>	<b>7</b>	<b>8,5</b>	<b>500</b>	<b>1,60</b>
DIN 01006		M6	6,4	4,5	6	34,5	27	10	9	7,5	8,5	500	1,60
<b>DIN 01606</b>	<b>16 mm<sup>2</sup></b>	<b>M6</b>	<b>6,4</b>	<b>5,5</b>	<b>8,5</b>	<b>43,5</b>	<b>36</b>	<b>20</b>	<b>13</b>	<b>7,5</b>	<b>8</b>	<b>250</b>	<b>3,00</b>
<b>DIN 01608</b>		<b>M8</b>	<b>8,4</b>	<b>5,5</b>	<b>8,5</b>	<b>46</b>	<b>36</b>	<b>20</b>	<b>13</b>	<b>10</b>	<b>10</b>	<b>250</b>	<b>3,30</b>
DIN 01610		M10	10,5	5,5	8,5	48	36	20	17	12	12	250	3,20
DIN 02506	<b>25 mm<sup>2</sup></b>	M6	6,4	7	10	45,5	38	20	14	7,5	8	200	2,90
<b>DIN 02508</b>		<b>M8</b>	<b>8,4</b>	<b>7</b>	<b>10</b>	<b>48</b>	<b>38</b>	<b>20</b>	<b>16</b>	<b>10</b>	<b>10</b>	<b>200</b>	<b>3,00</b>
DIN 02510		M10	10,5	7	10	50	38	20	17	12	12	200	3,20
DIN 02512		M12	13	7	10	51	38	20	19	13	13	200	3,20
DIN 03508	<b>35 mm<sup>2</sup></b>	M8	8,4	8,2	12,5	52	42	20	17	10	10	120	3,50
<b>DIN 03510</b>		<b>M10</b>	<b>10,5</b>	<b>8,2</b>	<b>12,5</b>	<b>54</b>	<b>42</b>	<b>20</b>	<b>19</b>	<b>12</b>	<b>12</b>	<b>120</b>	<b>3,50</b>
DIN 03512		M12	13	8,2	12,5	55	42	20	21	13	13	120	3,60
DIN 05008	<b>50 mm<sup>2</sup></b>	M8	8,4	10	14,5	62	52	28	20	10	10	65	2,90
<b>DIN 05010</b>		<b>M10</b>	<b>10,5</b>	<b>10</b>	<b>14,5</b>	<b>64</b>	<b>52</b>	<b>28</b>	<b>22</b>	<b>12</b>	<b>12</b>	<b>65</b>	<b>3,00</b>
DIN 05012		M12	13	10	14,5	65	52	28	24	13	13	65	2,90
DIN 05016		M16	17	10	14,5	68	52	28	28	16	16	65	2,90
DIN 07008	<b>70 mm<sup>2</sup></b>	M8	8,4	11,5	16,5	65	55	28	24	10	10	50	2,90
<b>DIN 07010</b>		<b>M10</b>	<b>10,5</b>	<b>11,5</b>	<b>16,5</b>	<b>67</b>	<b>55</b>	<b>28</b>	<b>24</b>	<b>12</b>	<b>12</b>	<b>50</b>	<b>3,00</b>
DIN 07012		M12	13	11,5	16,5	68	55	28	24	13	13	50	3,00
DIN 07016		M16	17	11,5	16,5	71	55	28	30	16	16	50	3,20
DIN 09510	<b>95 mm<sup>2</sup></b>	M10	10,5	13,5	19	77	65	35	28	12	12	30	2,70
<b>DIN 09512</b>		<b>M12</b>	<b>13</b>	<b>13,5</b>	<b>19</b>	<b>78</b>	<b>65</b>	<b>35</b>	<b>28</b>	<b>13</b>	<b>13</b>	<b>30</b>	<b>2,70</b>
DIN 09516		M16	17	13,5	19	81	65	35	32	16	16	30	2,80

- The cable lugs for which the cross sections are written with bold letters are standard production.
- Production can be done for the different bolt dimensions.
- Our goods are manufactured of electrolytic copper(E-Cu), they are full tempered, welded and min. 3 micron tin plated.
- Our company reserves the right of changing the dimension of the products without any prior notification.
- For the DIN 46235 Norm cable lugs between 10 - 150 mm<sup>2</sup> "d1" dimension tolerance is +/-0,3mm.; between 185-400 mm<sup>2</sup>, it is +/-0,4 mm.; between 500 - 625 mm<sup>2</sup>, it is +/-0,5mm; "b" dimension tolerance is +/-1 mm between 10 - 70 mm<sup>2</sup>; between 95-625 mm<sup>2</sup> it is +/-2 mm., for the full range cross sections "l1" dimension tolerance is +2 mm. and "c1" dimension tolerance is -3mm

## DIN 46235 Type Cable Lugs



### Features

- Tempering of the cable lugs during the production process provides easy and more practical usage of the Şafak Cable Lugs.
  - Cable lugs are reheated at 700 degrees so that they do not break after the crimping process.
  - All of the Şafak Cable Lugs are tempered during production process.
- ⚠ You must crimp DIN Norm Cable Lugs with DIN Norm Dies

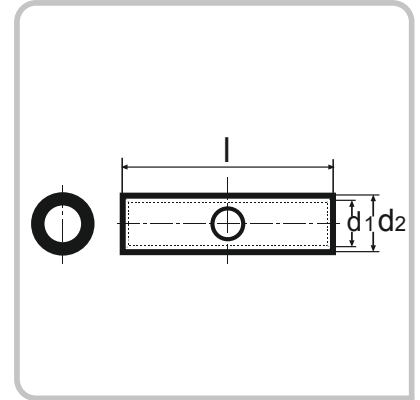
**Material** : EN 13600 standard copper  
**Surface Treatment** : Tin Plated

Product Code	Cross-Section mm <sup>2</sup>	Bolt Ø	Dimensions (mm)										Package Amount (Pcs)	Package Weight (~kg)
			d	d1	d2	l	l1	a	b	c1	c2			
DIN 12010	<b>120 mm<sup>2</sup></b>	M10	10,5	15,5	21	85	70	35	32	15	16	25	2,90	
<b>DIN 12012</b>		<b>M12</b>	<b>13</b>	<b>15,5</b>	<b>21</b>	<b>86</b>	<b>70</b>	<b>35</b>	<b>32</b>	<b>16</b>	<b>17</b>	<b>25</b>	<b>2,90</b>	
DIN 12016		M16	17	15,5	21	89	70	35	32	19	20	25	2,90	
DIN 12020		M20	21	15,5	21	91	70	35	38	21	22	25	2,90	
DIN 15010	<b>150 mm<sup>2</sup></b>	M10	10,5	17	23,5	93	78	35	34	15	16	20	3,20	
<b>DIN 15012</b>		<b>M12</b>	<b>13</b>	<b>17</b>	<b>23,5</b>	<b>94</b>	<b>78</b>	<b>35</b>	<b>34</b>	<b>16</b>	<b>17</b>	<b>20</b>	<b>3,10</b>	
DIN 15016		M16	17	17	23,5	97	78	35	34	19	20	20	3,40	
DIN 15020		M20	21	17	23,5	99	78	35	40	21	22	20	3,40	
DIN 18510	<b>185 mm<sup>2</sup></b>	M10	10,5	19	25,5	97	82	40	37	15	16	15	2,90 kg.	
<b>DIN 18512</b>		<b>M12</b>	<b>13</b>	<b>19</b>	<b>25,5</b>	<b>98</b>	<b>82</b>	<b>40</b>	<b>37</b>	<b>16</b>	<b>17</b>	<b>15</b>	<b>2,80 kg.</b>	
DIN 18516		M16	17	19	25,5	101	82	40	37	19	20	15	3,00 kg.	
DIN 18520		M20	21	19	25,5	103	82	40	40	21	22	15	3,10 kg.	
<b>DIN 24012</b>	<b>240 mm<sup>2</sup></b>	<b>M12</b>	<b>13</b>	<b>21,5</b>	<b>29</b>	<b>108</b>	<b>92</b>	<b>40</b>	<b>42</b>	<b>16</b>	<b>17</b>	<b>10</b>	<b>2,70 kg.</b>	
DIN 24016		M16	17	21,5	29	111	92	40	42	19	20	10	2,80 kg.	
DIN 24020		M20	21	21,5	29	113	92	40	45	21	22	10	2,90 kg.	
<b>DIN 30016</b>	<b>300 mm<sup>2</sup></b>	<b>M16</b>	<b>17</b>	<b>24,5</b>	<b>32</b>	<b>119</b>	<b>100</b>	<b>50</b>	<b>48</b>	<b>19</b>	<b>22</b>	<b>10</b>	<b>3,40 kg.</b>	
DIN 30020		M20	21	24,5	32	122	100	50	48	22	22	10	3,40 kg.	
<b>DIN 40016</b>	<b>400 mm<sup>2</sup></b>	<b>M16</b>	<b>17</b>	<b>27,5</b>	<b>38,5</b>	<b>140</b>	<b>115</b>	<b>70</b>	<b>55</b>	<b>25</b>	<b>25</b>	<b>8</b>	<b>5,30 kg.</b>	
DIN 40020		M20	21	27,5	38,5	140	115	70	55	25	25	8	5,40 kg.	
<b>DIN 50020</b>	<b>500 mm<sup>2</sup></b>	<b>M20</b>	<b>21</b>	<b>31</b>	<b>42</b>	<b>150</b>	<b>125</b>	<b>70</b>	<b>60</b>	<b>25</b>	<b>25</b>	<b>4</b>	<b>3,26 kg.</b>	
<b>DIN 62520</b>	<b>625 mm<sup>2</sup></b>	<b>M20</b>	<b>21</b>	<b>34,5</b>	<b>44</b>	<b>160</b>	<b>135</b>	<b>80</b>	<b>60</b>	<b>25</b>	<b>25</b>	<b>4</b>	<b>3,19 kg.</b>	

- The cable lugs for which the cross sections are written with bold letters are standard production.
- Production can be done for the different bolt dimensions.
- Our goods are manufactured of electrolytic copper(E-Cu), they are full tempered, welded and min. 3 micron tin plated.
- Our company reserves the right of changing the dimension of the products without any prior notification.
- For the DIN 46235 Norm cable lugs between 10 - 150 mm<sup>2</sup> "d1" dimension tolerance is +/-0,3mm.; between 185-400 mm<sup>2</sup>, it is +/-0,4 mm.; between 500 - 625 mm<sup>2</sup>, it is +/-0,5mm; "b" dimension tolerance is +/-1 mm between 10 - 70 mm<sup>2</sup>; between 95-625 mm<sup>2</sup> it is +/-2 mm., for the full range cross sections "l1" dimension tolerance is +2 mm. and "c1" dimension tolerance is -3mm



## DIN 46267 Type Butt-connectors



### Features

- Tempering of the cable lugs during the production process provides easy and more practical usage of the Şafak Cable Lugs.
  - Cable lugs are reheated at 700 degrees so that they do not break after the crimping process.
  - All of the Şafak Cable Lugs are tempered during production process.
- ⚠ You must crimp DIN 46267 Type Butt-connectors with DIN Norm Dies





















**Material** : EN 13600 standard copper  
**Surface Treatment** : Tin Plated

Product Code	Cross-Section mm <sup>2</sup>	Dimensions (mm)			Package Amount (Pcs)	Package Weight (~kg)
		d1	d2	L		
DIN EM010	<b>10 mm<sup>2</sup></b>	4,5	7	30	300	2,60 kg.
DIN EM016	<b>16 mm<sup>2</sup></b>	5,5	8,5	50	200	2,80 kg.
DIN EM025	<b>25 mm<sup>2</sup></b>	7	10	50	150	2,70 kg.
DIN EM035	<b>35 mm<sup>2</sup></b>	8,2	12,5	50	100	3,00 kg.
DIN EM050	<b>50 mm<sup>2</sup></b>	10	14,5	56	60	2,60 kg.
DIN EM070	<b>70 mm<sup>2</sup></b>	11,5	16,5	56	50	2,69 kg.
DIN EM095	<b>95 mm<sup>2</sup></b>	13,5	19	70	30	2,64 kg.
DIN EM120	<b>120 mm<sup>2</sup></b>	15,5	21	70	25	2,44 kg.
DIN EM150	<b>150 mm<sup>2</sup></b>	17	23,5	80	20	2,80 kg.
DIN EM185	<b>185 mm<sup>2</sup></b>	19	25,5	85	15	2,52 kg.
DIN EM240	<b>240 mm<sup>2</sup></b>	21,5	29	90	10	2,40 kg.
DIN EM300	<b>300 mm<sup>2</sup></b>	24,5	32	100	10	3,02 kg.
DIN EM400	<b>400 mm<sup>2</sup></b>	27,5	38,5	150	5	3,78 kg.
DIN EM500	<b>500 mm<sup>2</sup></b>	31	42	160	5	4,60 kg.
DIN EM625	<b>625 mm<sup>2</sup></b>	34,5	44	160	5	4,08 kg.

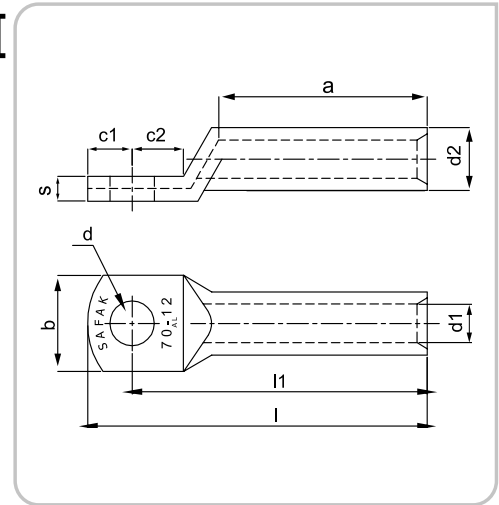
\* Our goods are manufactured of electrolytic copper(E-Cu), they are full tempered, welded and min. 3 micron tin plated.

\* Our company reserves the right of changing the dimension of the products without any prior notification.

### RECOMMENDED HAND TOOLS

"Crimping Range mm <sup>2</sup> "	Tool Code	"Mechanical Crimping Tools"	"Mechanical Crimping Tools with Revolving Dies"	"Hydraulic Crimping Tools"	"Hydraulic Crimping Heads"	"Battery Operated Hydraulic Crimping Tools"	"Crimping Profile"	Page
6-50	SP-0650		*					P65
6-240	SFK-60MINI ELEC					*		P77
6-300	SFK-60MINI S ELEC					*		P78
	SFK-60 ELEC					*		P79
	SFK-60S ELEC					*		P80
10-120	SP-120	*						P65
	SP-10120		*					P65
10-240	S-6			*				P71
10-300	SP-300	*						P65
	S-60			*				P71
16-300	SC-130			*				P71
	SXC-130				*			P72
	SFK-120 ELEC					*		P81
16-400	SC-130L			*				P71
	SXC-130L				*			P72
	SFK-120L ELEC					*		P82
16-600	SHK-25				*			P72
	SHK-45				*			P73
25-150	SP-25150		*					P65
625	SHK-110				*			P73

## ALUMINUM Cable Lugs



### Features

- Tube dimensions are according to DIN 46329
- The lugs are marked for correct crimping
- These lugs must be crimped Al series dies

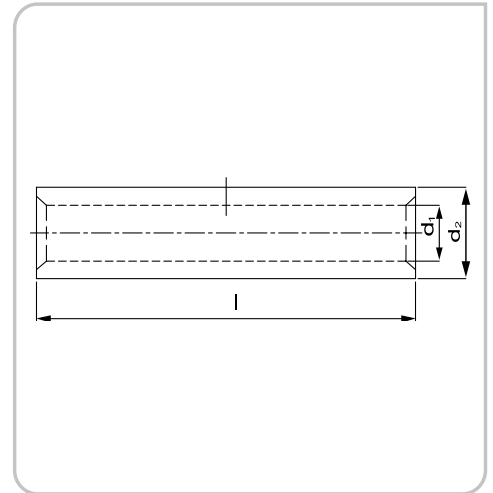
**Material** : E-Al  
**Surface Treatment** : Tin, bright

Product Code	Cross-Section mm <sup>2</sup>	Bolt Ø	Dimensions (mm)											Box Amount
			d	d1	d2	l1	l	a	b	c1	c2	s		
AL 01608	16 mm <sup>2</sup>	M8	8,5	5,8	9,7	52	61,5	35,4	18	9,5	11,5	3,9	200	
AL 01610		M10	10,5	5,8	9,7	52	61,5	35,4	18	9,5	11,5	3,9	200	
AL 02508	25 mm <sup>2</sup>	M8	8,5	6,8	11,4	60	69,5	42,3	18	9,5	11,5	4,6	100	
AL 02510		M10	10,5	6,8	11,4	60	69,5	42,3	18	9,5	11,5	4,6	100	
AL 03510	35 mm <sup>2</sup>	M10	10,5	8	13,9	67	78,5	46,3	21	11,5	13,5	5,9	60	
AL 03512		M12	13	8	13,9	67	78,5	46,3	21	11,5	13,5	5,9	60	
AL 05010	50 mm <sup>2</sup>	M10	10,5	9,8	16,4	72	83,5	50	25	11,5	13,5	6,6	50	
AL 05012		M12	13	9,8	16,4	72	83,5	50	25	11,5	13,5	6,6	50	
AL 07010	70 mm <sup>2</sup>	M10	10,5	11,2	18,4	86	99	60,7	28	13	15	7,2	30	
AL 07012		M12	13	11,2	18,4	86	99	60,7	28	13	15	7,2	30	
AL 09510	95 mm <sup>2</sup>	M10	10,5	13,2	21,2	90	106,5	59,8	32	16,5	18,5	8	25	
AL 09512		M12	13	13,2	21,2	90	106,5	59,8	32	16,5	18,5	8	25	
AL 09516		M16	17	13,2	21,2	90	106,5	59,8	34	16,5	18,5	8	25	
AL 12012	120 mm <sup>2</sup>	M12	13	14,7	23,5	91	107,5	59,7	32	16,5	18,5	8,8	20	
AL 12016		M16	17	14,7	23,5	91	107,5	59,7	34	16,5	18,5	8,8	20	
AL 15012	150 mm <sup>2</sup>	M12	13	16,3	25,5	103	122	68,2	35	19	21	9,2	15	
AL 15016		M16	17	16,3	25,5	103	122	68,2	35	19	21	9,2	15	
AL 15020		M20	21	16,3	25,5	103	122	68,2	40	19	21	9,2	15	
AL 18512	185 mm <sup>2</sup>	M12	13	18,3	29	106	125	69,6	40	19	21	10,7	12	
AL 18516		M16	17	18,3	29	106	125	69,6	40	19	21	10,7	12	
AL 18520		M20	21	18,3	29	106	125	69,6	40	19	21	10,7	12	
AL 24012	240 mm <sup>2</sup>	M12	13	21	32	116	136	76,9	45	20	22	11	8	
AL 24016		M16	17	21	32	116	136	76,9	45	20	22	11	8	
AL 24020		M20	21	21	32	116	136	76,9	45	20	22	11	8	
AL 30016	300 mm <sup>2</sup>	M16	17	23,3	38,5	124	144	82	49	20	22	15,2	6	
AL 30020		M20	21	23,3	38,5	124	144	82	49	20	22	15,2	6	
AL 40016	400 mm <sup>2</sup>	M16	17	26	42	165	188	118,2	58	23	25	16	4	
AL 40020		M20	21	26	42	165	188	118,2	58	23	25	16	4	

\* Please ask the stocks for the other cross sections.

\* Our company reserves the right of changing the dimension of the products without any prior notification.

## DIN 46267 Aluminum Butt-connectors



### Features








- Manufactured according to DIN 46267
- The butt-connectors are marked for correct crimping
- Please crimp with Aluminum dies
- These butt-connectors must be crimped with AL series dies

**Material** : E-Al  
**Surface Treatment** : Tin, bright

Product Code	Cross-Section mm <sup>2</sup>	Dimensions (mm)			Box Amount
		d1	d2	l	
AL EM016	<b>16 mm<sup>2</sup></b>	5,8	9,7	55	200
AL EM025	<b>25 mm<sup>2</sup></b>	6,8	11,4	70	150
AL EM035	<b>35 mm<sup>2</sup></b>	8,0	13,9	85	80
AL EM050	<b>50 mm<sup>2</sup></b>	9,8	16,4	85	50
AL EM070	<b>70 mm<sup>2</sup></b>	11,2	18,4	105	40
AL EM095	<b>95 mm<sup>2</sup></b>	13,2	21,2	105	30
AL EM120	<b>120 mm<sup>2</sup></b>	14,7	23,5	105	25
AL EM150	<b>150 mm<sup>2</sup></b>	16,3	25,5	125	15
AL EM185	<b>185 mm<sup>2</sup></b>	18,3	29	125	12
AL EM240	<b>240 mm<sup>2</sup></b>	21,0	32	145	8
AL EM300	<b>300 mm<sup>2</sup></b>	23,3	38,5	145	6
AL EM400	<b>400 mm<sup>2</sup></b>	26,0	42	188	4

\* Our company reserves the right of changing the dimension of the products without any prior notification.

### RECOMMENDED HAND TOOLS

"Crimping Range mm <sup>2</sup> "	Tool Code	"Mechanical Crimping Tools"	"Mechanical Crimping Tools with Revolving Dies"	"Hydraulic Crimping Tools"	"Hydraulic Crimping Heads"	"Battery Operated Hydraulic Crimping Tools"	"Crimping Profile"	Page
16-300	SC-130			*				<b>P71</b>
	SXC-130				*			<b>P72</b>
	SFK-120 ELEC							<b>P81</b>
16-400	SC-130L			*				<b>P71</b>
	SXC-130L				*			<b>P72</b>
	SFK-120L ELEC					*		<b>P82</b>
	SHK-25				*			<b>P72</b>

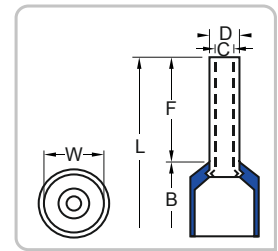
### Cord-end Terminals *French Color Norm ( DIN 46228 )*



**Standard Material Insulation Operating Temperature**



: DIN 46228  
: Copper (E-Cu), Tin plated  
: Nylon  
: Maximum 105° 600 Volt



Product Code	Colour	Cross-Section mm <sup>2</sup>	Dimensions (mm)							Package Amount (Pcs)	Carton Quantity (Pcs)	Package Weight (-gr)
			F	L	W	B	D	C				
UY-3005 E	White	0,50 mm <sup>2</sup>	8,0	14,0	2,6	6,0	1,3	1,0	500	60.000	64	
UY-3007 E	Blue	0,75 mm <sup>2</sup>	8,0	14,0	2,8	6,3	1,5	1,2	500	60.000	72	
UY-3010 E	Red	1,00 mm <sup>2</sup>	8,0	14,0	3,0	6,3	1,7	1,4	500	60.000	75	
UY-3015 E	Black	1,50 mm <sup>2</sup>	8,0	14,0	3,5	6,3	2,0	1,7	500	30.000	108	
UY-3025 E	Grey	2,50 mm <sup>2</sup>	8,0	15,0	4,2	7,4	2,5	2,2	500	30.000	133	
UY-3040 E	Orange	4,00 mm <sup>2</sup>	10,0	17,0	4,8	7,4	3,2	2,8	250	15.000	119	
UY-3060 E	Green	6,00 mm <sup>2</sup>	12,0	20,0	6,3	8,5	3,9	3,5	250	12.500	177	
UY-3100 E	Brown	10,00 mm <sup>2</sup>	12,0	22,0	7,6	8,8	4,9	4,5	100	6.000	109	
UY-3160 E	Ivory	16,00 mm <sup>2</sup>	12,0	24,0	8,8	10,0	6,2	5,8	100	5.000	138	
UY-3250 E	Black	25,00 mm <sup>2</sup>	16,0	28,0	11,2	12,0	7,7	7,3	50	2.500	125	
UY-3350 E	Red	35,00 mm <sup>2</sup>	16,0	30,0	12,7	14,0	8,7	8,3	50	2.500	141	
UY-3500 E	Blue	50,00 mm <sup>2</sup>	20,0	36,0	15,0	16,0	10,9	10,3	50	2.500	168	
UY-3700 E	Yellow	70,00 mm <sup>2</sup>	20,0	37,0	16,0	17,0	14,3	13,5	50	2.500	270	

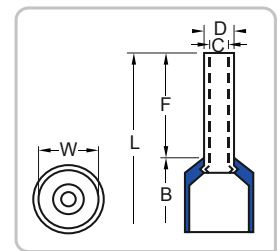
### Cord-end Terminals *German Color Norm ( DIN 46228 )*



**Standard Material Insulation Operating Temperature**



: DIN 46228  
: Copper (E-Cu), Tin plated  
: Nylon  
: Maximum 105° 600 Volt

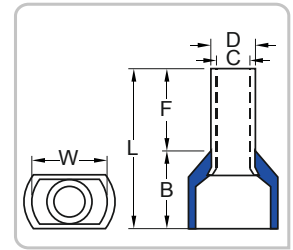


Product Code	Colour	Cross-Section mm <sup>2</sup>	Dimensions (mm)							Package Amount (Pcs)	Carton Quantity (Pcs)	Package Weight (-gr)
			F	L	W	B	D	C				
UY-2005 E	Orange	0,50 mm <sup>2</sup>	8,0	14,0	2,6	6,0	1,3	1,0	500	60.000	64	
UY-2007 E	White	0,75 mm <sup>2</sup>	8,0	14,0	2,8	6,3	1,5	1,2	500	60.000	72	
UY-2010 E	Yellow	1,00 mm <sup>2</sup>	8,0	14,0	3,0	6,3	1,7	1,4	500	60.000	75	
UY-2015 E	Red	1,50 mm <sup>2</sup>	8,0	14,0	3,5	6,3	2,0	1,7	500	30.000	108	
UY-2025 E	Blue	2,50 mm <sup>2</sup>	8,0	15,0	4,2	7,4	2,5	2,2	500	30.000	133	
UY-2040 E	Grey	4,00 mm <sup>2</sup>	10,0	17,0	4,8	7,4	3,2	2,8	250	15.000	119	
UY-2060 E	Black	6,00 mm <sup>2</sup>	12,0	20,0	6,3	8,5	3,9	3,5	250	12.500	179	
UY-2100 E	Beige	10,00 mm <sup>2</sup>	12,0	22,0	7,6	8,8	4,9	4,5	100	6.000	109	
UY-2160 E	Green	16,00 mm <sup>2</sup>	12,0	24,0	8,8	10,0	6,2	5,8	100	5.000	138	
UY-2250 E	Brown	25,00 mm <sup>2</sup>	16,0	28,0	11,2	12,0	7,7	7,3	50	2.500	125	
UY-2350 E	Beige	35,00 mm <sup>2</sup>	16,0	30,0	12,7	14,0	8,7	8,3	50	2.500	140	
UY-2500 E	Olive	50,00 mm <sup>2</sup>	20,0	36,0	15,0	16,0	10,9	10,3	50	2.500	168	

## Insulated Twin Cord End Terminals ( DIN 46228 )

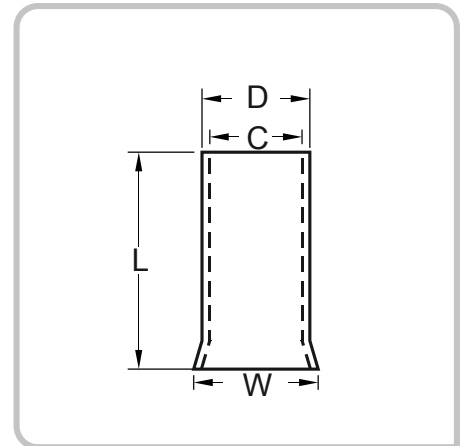


**Standard** : DIN 46228  
**Material** : Copper (E-Cu), Tin plated  
**Insulation** : Nylon  
**Operating Temperature** : Maximum 105° 600 Volt



Product Code	Colour	Cross-Section mm <sup>2</sup>	Dimensions (mm)							Package Amount (Pcs)	Carton Quantity (Pcs)	Package Weight (~gr)
			F	L	W	B	D	C				
<b>UY-23005 E</b>	White	<b>2 x 0,50 mm<sup>2</sup></b>	8,0	14,5	5,0	6,5	1,8	1,5	500	30.000	107	
<b>UY-23007 E</b>	Blue	<b>2 x 0,75 mm<sup>2</sup></b>	8,0	14,7	5,5	6,7	2,1	1,8	500	30.000	121	
<b>UY-23010 E</b>	Red	<b>2 x 1,00 mm<sup>2</sup></b>	8,0	15,1	5,5	7,1	2,4	2,1	500	30.000	137	
<b>UY-23015 E</b>	Black	<b>2 x 1,50 mm<sup>2</sup></b>	8,0	15,5	6,4	7,5	2,6	2,3	500	25.000	164	
<b>UY-23025 E</b>	Grey	<b>2 x 2,50 mm<sup>2</sup></b>	10,0	18,5	8,0	8,5	3,3	2,9	250	12.500	137	
<b>UY-23040 E</b>	Orange	<b>2 x 4,00 mm<sup>2</sup></b>	12,0	23,1	8,8	11,1	4,2	3,8	100	6.000	98	
<b>UY-23060 E</b>	Green	<b>2 x 6,00 mm<sup>2</sup></b>	14,0	26,1	9,5	12,1	5,3	4,9	100	5.000	149	
<b>UY-23100 E</b>	Brown	<b>2 x 10,00 mm<sup>2</sup></b>	14,0	26,6	12,6	12,6	6,9	6,5	50	3.000	108	
<b>UY-23160 E</b>	Beige	<b>2 x 16,00 mm<sup>2</sup></b>	14,0	31,3	19,0	17,3	8,7	8,3	50	2.500	56	

## Non-Insulated Cord End Terminals ( DIN 46228 )



**Standard** : DIN 46228  
**Material** : Copper (E-Cu), Tin plated

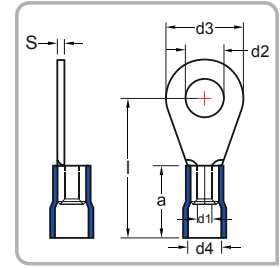
Product Code	Cross-Section mm <sup>2</sup>	Dimensions (mm)				Package Amount (Pcs)	Carton Quantity (Pcs)	Package Weight (-gr)
		L	D	C	W			
<b>KY-0,50/6</b>	0,50 mm <sup>2</sup>	6,0	1,3	1,0	1,7	1.000	120.000	54
<b>KY-0,50</b>	0,50 mm <sup>2</sup>	10,0	1,3	1,0	1,7	1.000	120.000	76
<b>KY-0,75</b>	0,75 mm <sup>2</sup>	10,0	1,5	1,2	1,9	1.000	120.000	85
<b>KY-1,00</b>	1,00 mm <sup>2</sup>	10,0	1,7	1,4	2,2	1.000	120.000	92
<b>KY-1,50/7</b>	1,50 mm <sup>2</sup>	7,0	2,0	1,7	2,5	1.000	120.000	83
<b>KY-1,50</b>	1,50 mm <sup>2</sup>	10,0	2,0	1,7	2,5	1.000	120.000	104
<b>KY-2,50/8</b>	2,50 mm <sup>2</sup>	8,0	2,6	2,3	3,3	1.000	120.000	112
<b>KY-2,50</b>	2,50 mm <sup>2</sup>	12,0	2,6	2,3	3,3	1.000	60.000	180
<b>KY-4,00</b>	4,00 mm <sup>2</sup>	12,0	3,2	2,8	3,9	500	30.000	155
<b>KY-6,00</b>	6,00 mm <sup>2</sup>	12,0	3,9	3,5	4,7	500	30.000	175
<b>KY-10/12</b>	10,00 mm <sup>2</sup>	12,0	4,9	4,5	5,8	250	15.000	131
<b>KY-10</b>	10,00 mm <sup>2</sup>	15,0	4,9	4,5	5,8	250	15.000	156
<b>KY-16/12</b>	16,00 mm <sup>2</sup>	12,0	6,2	5,8	7,2	100	12.000	67
<b>KY-16</b>	16,00 mm <sup>2</sup>	15,0	6,2	5,8	7,2	100	12.000	78
<b>KY-25</b>	25,00 mm <sup>2</sup>	15,0	7,9	7,5	9,1	100	6.000	114
<b>KY-35</b>	35,00 mm <sup>2</sup>	15,0	8,7	8,3	10,2	100	6.000	121
<b>KY-50</b>	50,00 mm <sup>2</sup>	22,0	10,9	10,3	12,7	100	-	217
<b>KY-70</b>	70,00 mm <sup>2</sup>	25,0	14,3	13,5	15,8	50	-	398
<b>KY-95</b>	95,00 mm <sup>2</sup>	30,0	15,6	14,8	17,3	50	-	511
<b>KY-120</b>	120,00 mm <sup>2</sup>	34,0	17,7	16,7	20,2	25	-	846
<b>KY-150</b>	150,00 mm <sup>2</sup>	38,0	20,6	19,6	23,0	25	-	1.026



## Ring Type Insulated Cable Terminals ( DIN 46237 )



**Material** : Copper (E-Cu), Tin Plated  
**Insulation** : PVC  
**Operating Temperature** : Max 75° 600 Volt

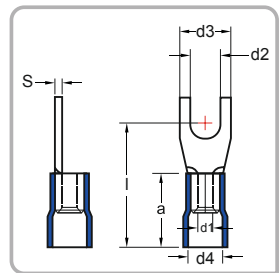


Product Code	Cross-Section mm <sup>2</sup>	Bolt Size	Dimensions (mm)							Package Amount (Pcs)	Carton Quantity (Pcs)	Package Weight (-gr)
			d2	d3	l	d1	d4	a	S			
YK-301	0,50 - 1,50 mm <sup>2</sup>	M3	3,2	6,0	16,0	1,6	4,0	10,0	0,8	200	12.000	182
YK-401		M4	4,3	8,0	17,0	1,6	4,0	10,0	0,8	200	12.000	206
YK-501		M5	5,3	10,0	18,0	1,6	4,0	10,0	0,8	200	12.000	238
YK-601		M6	6,5	10,0	18,0	1,6	4,0	10,0	0,8	200	12.000	255
YK-801		M8	8,4	14,0	22,0	1,6	4,0	10,0	0,8	200	12.000	324
YK-302	1,50 - 2,50 mm <sup>2</sup>	M3	3,2	6,0	16,0	2,3	4,5	10,0	0,8	200	12.000	202
YK-402		M4	4,3	8,0	17,0	2,3	4,5	10,0	0,8	200	12.000	224
YK-502		M5	5,3	10,0	19,0	2,3	4,5	10,0	0,8	200	10.000	269
YK-602		M6	6,5	11,0	21,0	2,3	4,5	10,0	0,8	200	10.000	297
YK-802		M8	8,4	14,0	22,0	2,3	4,5	10,0	0,8	200	10.000	346
YK-1002	4,00 - 6,00 mm <sup>2</sup>	M10	10,5	15,0	22,0	2,3	4,5	10,0	0,8	100	5.000	253
YK-1202		M12	13,0	18,0	25,0	2,3	4,5	10,0	0,8	100	6.000	200
YK-406		M4	4,3	8,0	21,0	3,6	6,3	13,0	1,0	100	6.000	205
YK-506		M5	5,3	10,0	22,0	3,6	6,3	13,0	1,0	100	6.000	223
YK-606		M6	6,5	11,0	22,5	3,6	6,3	13,0	1,0	100	6.000	249
YK-806	4,00 - 6,00 mm <sup>2</sup>	M8	8,4	14,0	26,0	3,6	6,3	13,0	1,0	100	5.000	290
YK-1006		M10	10,5	18,0	28,0	3,6	6,3	13,0	1,0	100	5.000	351
YK-1206		M12	13,0	18,0	28,0	3,6	6,3	13,0	1,0	50	3.000	172

## Fork Type Insulated Cable Terminals ( DIN 46237 )



**Material** : Copper (E-Cu), Tin Plated  
**Insulation** : PVC  
**Operating Temperature** : Max. 75° 600 Volt

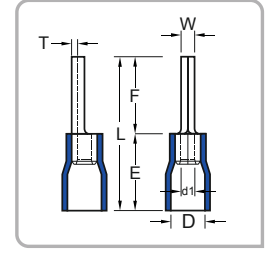


Product Code	Cross-Section mm <sup>2</sup>	Bolt Size	Dimensions (mm)							Package Amount (Pcs)	Carton Quantity (Pcs)	Package Weight (-gr)
			d2	d3	l	d1	d4	a	S			
ÇK-3001	0,50 - 1,50 mm <sup>2</sup>	M3	3,2	6,0	16,0	1,6	4,0	10	0,8	200	12.000	200
ÇK-4001		M4	4,3	6,8	17,0	1,6	4,0	10	0,8	200	12.000	200
ÇK-5001		M5	5,3	10,0	18,0	1,6	4,0	10	0,8	200	12.000	229
ÇK-6001		M6	6,5	11,0	20,0	1,6	4,0	10	0,8	200	12.000	242
ÇK-3002	1,50 - 2,50 mm <sup>2</sup>	M3	3,2	5,5	18,0	2,3	4,5	10	0,8	200	12.000	197
ÇK-4002		M4	4,3	6,8	17,0	2,3	4,5	10	0,8	200	12.000	202
ÇK-5002		M5	5,3	10,0	19,0	2,3	4,5	10	0,8	200	10.000	265
ÇK-6002		M6	6,5	11,0	21,0	2,3	4,5	10	0,8	200	10.000	297
ÇK-4006	4,00 - 6,00 mm <sup>2</sup>	M4	4,3	8,0	21,0	3,6	6,3	13	1,0	100	6.000	200
ÇK-5006		M5	5,3	10,0	22,0	3,6	6,3	13	1,0	100	6.000	226
ÇK-6006		M6	6,5	11,0	23,0	3,6	6,3	13	1,0	100	5.000	235
ÇK-8006		M8	8,4	14,0	26,0	3,6	6,3	13	1,0	100	5.000	284
ÇK-10006		M10	10,5	18	28,0	3,6	6,3	13	1,0	50	2.500	197

### Pin Type Insulated Cable Terminals



**Material** : Copper (E-Cu), Tin plated  
**Insulation** : Nylon  
**Operating Temperature** : Maximum 105° 600 Volt

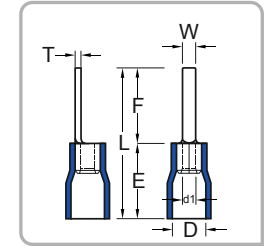


Product Code	Cross-Section mm <sup>2</sup>	Dimensions (mm)							Package Amount (Pcs)	Carton Quantity (Pcs)	Package Weight (-gr)
		W	F	L	E	D	d1	T			
<b>iK-101</b>	<b>0,50 - 1,50 mm<sup>2</sup></b>	1,9	10,0	19,8	10,0	4,0	1,7	0,75	200	12.000	174
<b>iK-102</b>	<b>1,50 - 2,50 mm<sup>2</sup></b>	1,9	12,0	21,8	10,0	4,5	2,3	0,80	200	12.000	210
<b>iK-106</b>	<b>4,00 - 6,00 mm<sup>2</sup></b>	2,8	14,0	27,0	13,0	6,4	3,4	1,00	100	6.000	228

### Blade Type Insulated Cable Terminals



**Material** : Copper (E-Cu), Tin plated  
**Insulation** : PVC  
**Operating Temperature** : Maximum 75° 600 Volt

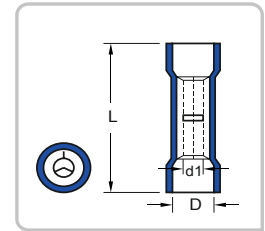


Product Code	Cross-Section mm <sup>2</sup>	Dimensions (mm)							Package Amount (Pcs)	Carton Quantity (Pcs)	Package Weight (-gr)
		W	F	L	E	D	d1	T			
<b>iK-101/14</b>	<b>0,50 - 1,50 mm<sup>2</sup></b>	3,0	14,0	23,8	10,0	4,0	1,7	0,75	200	12.000	180 gr.
<b>iK-102/18</b>	<b>1,50 - 2,50 mm<sup>2</sup></b>	2,2	18,0	27,8	10,0	4,5	2,3	0,80	200	12.000	206 gr.

### Butt-splice Connectors Insulated Cable Terminals



**Standard** : DIN 46237  
**Material** : Copper (E-Cu), Tin plated  
**Insulation** : PVC  
**Operating Temperature** : Maximum 75° 600 Volt

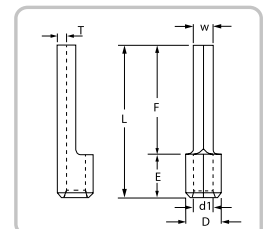


Product Code	Cross-Section mm <sup>2</sup>	L	D	d1	Package Amount (Pcs)	Carton Quantity (Pcs)	Package Weight (-gr)
<b>BY-252</b>	<b>1,50 - 2,50 mm<sup>2</sup></b>	24,6	4,5	2,3	200	10.000	322
<b>BY-256</b>	<b>4,00 - 6,00 mm<sup>2</sup></b>	26,5	6,3	3,4	100	5.000	285

### DIN 46230 Type Non- Insulated Cable Terminals - (Welded)



**Standard** : DIN 46230  
**Material** : Copper (E-Cu), Tin plated  
**Operating Temperature** : Maximum 75° 600 Volt

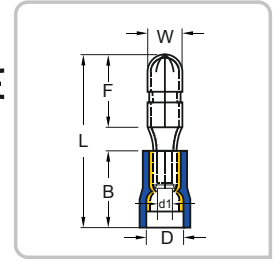


Product Code	Cross-Section mm <sup>2</sup>	Dimensions (mm)							Package Amount (Pcs)	Package Weight (-gr)
		W	F	L	E	D	d1	T		
<b>iK-110-12</b>	<b>10 mm<sup>2</sup></b>	4,3	14,0	22,0	8,0	6,9	4,5	1,1	500	24,5
<b>iK-116-13</b>	<b>16 mm<sup>2</sup></b>	5,5	16,0	26,0	10,0	8,4	5,8	1,2	250	29,7
<b>iK-125-15</b>	<b>25 mm<sup>2</sup></b>	6,8	20,0	33,5	13,5	9,5	7,0	1,2	100	40,5
<b>IK-135-20</b>	<b>35 mm<sup>2</sup></b>	8,0	24,5	40,5	16,0	11,8	8,4	1,5	50	40,0
<b>IK-150-20</b>	<b>50 mm<sup>2</sup></b>	9,5	26,0	45,0	19,0	13,6	9,6	1,8	50	47,0
<b>IK-170-25</b>	<b>70 mm<sup>2</sup></b>	11,0	31,0	55,0	24,0	15,8	11,4	2,0	25	59,0
<b>IK-195-25</b>	<b>95 mm<sup>2</sup></b>	12,5	31,0	55,0	24,0	18,9	13,5	2,5	20	44,5

### Male Terminals - Insulated Cable Terminals ( Extra Copper Sleeve )



**Material** : Brass, Tin Plated, Copper Sleeved  
**Insulation** : PVC  
**Operating Temperature** : Maximum 75° 600 Volt

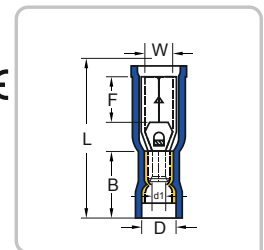


Product Code	Cross-Section mm <sup>2</sup>	Dimensions (mm)							Package Amount (Pcs)	Carton Quantity (Pcs)	Package Weight (~gr)
		W	F	L	B	D	d1				
<b>BE-1040</b>	<b>0,50 - 1,50 mm<sup>2</sup></b>	4,0	8,5	21,5	10,5	3,8	1,7	200	12.000	216	
<b>BE-2040</b>		4,0	8,5	21,7	10,5	4,7	2,3	200	12.000	235	
<b>BE-2050</b>	<b>1,50 - 2,50 mm<sup>2</sup></b>	5,0	8,5	21,2	10,5	4,7	2,3	200	12.000	252	
<b>BE-5050</b>		5,0	8,5	24,0	13,0	6,2	3,4	100	5.000	185	

### Female Terminals - Insulated Cable Terminals ( Extra Copper Sleeve )



**Material** : Brass, Tin Plated, Copper Sleeved  
**Insulation** : PVC  
**Operating Temperature** : Maximum 75° 600 Volt

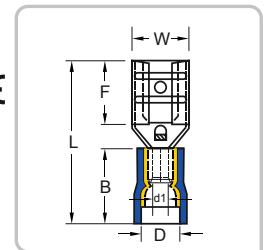


Product Code	Cross-Section mm <sup>2</sup>	Dimensions (mm)							Package Amount (Pcs)	Carton Quantity (Pcs)	Package Weight (~gr)
		W	F	L	B	D	d1				
<b>BD-1040</b>	<b>0,50 - 1,50 mm<sup>2</sup></b>	3,9	7,0	23,3	10,5	3,8	1,7	100	6.000	165	
<b>BD-2040</b>		3,9	7,0	23,3	10,5	4,7	2,3	100	6.000	174	
<b>BD-2050</b>	<b>1,50 - 2,50 mm<sup>2</sup></b>	4,9	7,0	23,3	10,5	4,7	2,3	100	6.000	186	
<b>BD-5050</b>		4,9	7,0	25,1	12,5	6,2	3,4	100	5.000	253	

### Female Disconnectors - Insulated Cable Terminals ( Extra Copper Sleeve )



**Material** : Brass, Tin Plated, Copper Sleeved  
**Insulation** : PVC  
**Operating Temperature** : Maximum 75° 600 Volt

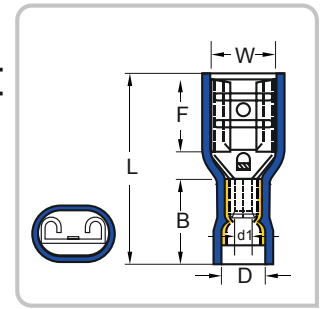


Product Code	Cross-Section mm <sup>2</sup>	Socket Width	Dimensions (mm)							Package Amount (Pcs)	Carton Quantity (Pcs)	Package Weight (~gr)
			W	F	L	B	D	d1				
<b>FD-1288/5</b>	<b>0,50 - 1,50 mm<sup>2</sup></b>	0,5 x 2,80	3,2	6,5	19,0	10,5	3,8	1,7	200	12.000	186	
<b>FD-1288</b>		0,8 x 2,80	3,2	6,5	19,0	10,5	3,8	1,7	200	12.000	186	
<b>FD-1488/5</b>		0,5 x 4,75	5,0	6,4	19,4	10,5	3,8	1,7	200	12.000	203	
<b>FD-1488</b>		0,8 x 4,75	5,0	6,4	19,4	10,5	3,8	1,7	200	12.000	203	
<b>FD-1638</b>		0,8 x 6,35	6,6	7,5	20,8	10,5	3,8	1,7	200	12.000	240	
<b>FD-1778</b>		0,8 x 8,00	8,2	10,0	24,5	10,5	3,8	1,7	100	6.000	171	
<b>FD-2288</b>	<b>1,50 - 2,50 mm<sup>2</sup></b>	0,8 x 2,80	3,2	6,5	19,0	10,5	4,7	2,3	200	12.000	197	
<b>FD-2488</b>		0,8 x 4,75	5,0	6,4	19,4	10,5	4,7	2,3	200	12.000	218	
<b>FD-2638</b>		0,8 x 6,35	6,6	7,5	20,8	10,5	4,7	2,3	200	12.000	257	
<b>FD-2778</b>		0,8 x 8,00	8,2	10,0	24,5	10,5	4,7	2,3	100	6.000	178	
<b>FD-5488</b>	<b>4,00 - 6,00 mm<sup>2</sup></b>	0,8 x 4,75	5,0	6,5	22,0	13,0	6,2	3,4	100	6.000	131	
<b>FD-5638</b>		0,8 x 6,35	6,6	7,5	23,3	13,0	6,2	3,4	100	6.000	189	
<b>FD-5956</b>		1,2 x 9,40	10,0	12,0	28,6	13,0	6,2	3,4	100	5.000	209	

## Fully Insulated Female Disconnectors - Insulated Cable Terminals ( Extra Copper Sleeve )



**Material** : Brass, Tin Plated, Copper Sleeved  
**Insulation** : PVC  
**Operating Temperature** : Maximum 75° 600 Volt

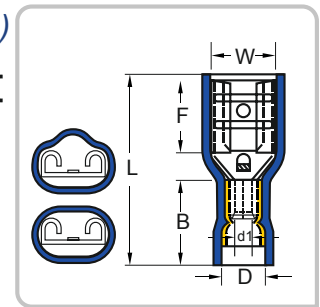


Product Code	Cross-Section mm <sup>2</sup>	Socket Width	Dimensions (mm)						Package Amount (Pcs)	Carton Quantity (Pcs)	Package Weight (~gr)
			W	F	L	B	D	d1			
FFD-1288/5	0,50 - 1,50 mm <sup>2</sup>	0,5 x 2,80	3,2	6,5	19,0	10,5	3,8	1,7	200	12.000	206
FFD-1288		0,8 x 2,80	3,2	6,5	19,0	10,5	3,8	1,7	200	12.000	206
FFD-1488/5	0,50 - 1,50 mm <sup>2</sup>	0,5 x 4,75	5,0	6,4	20,5	10,5	3,8	1,7	200	10.000	237
FFD-1488		0,8 x 4,75	5,0	6,4	20,5	10,5	3,8	1,7	200	10.000	240
FFD-1638	1,50 - 2,50 mm <sup>2</sup>	0,8 x 6,35	6,6	7,5	21,8	10,5	3,8	1,7	100	6.000	167
FFD-2488		0,8 x 4,75	5,0	6,4	20,2	10,5	4,7	2,3	100	6.000	157
FFD-2638	1,50 - 2,50 mm <sup>2</sup>	0,8 x 6,35	6,6	7,5	22,2	10,5	4,7	2,3	100	6.000	178
FFD-5638		4,00 - 6,00 mm <sup>2</sup>	0,8 x 6,35	6,6	7,5	24,2	12,5	6,2	3,4	100	5.000

## Fully Polyamide Insulated Female Disconnectors ( Extra Copper Sleeve )



**Material** : Brass, Tin Plated, Copper Sleeved  
**Insulation** : Nylon  
**Operating Temperature** : Maximum 105° 600 Volt

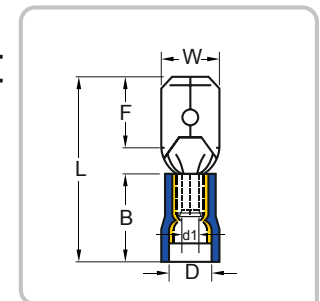


Product Code	Cross-Section mm <sup>2</sup>	Socket Width	Dimensions (mm)						Package Amount (Pcs)	Carton Quantity (Pcs)	Package Weight (~gr)
			W	F	L	B	D	d1			
PFD-1288	0,50 - 1,50 mm <sup>2</sup>	0,8 x 2,80	3,2	6,5	19,5	11,0	4,0	1,7	200	12.000	206
PFD-1638		0,8 x 6,35	6,6	7,5	21,5	11,0	4,0	1,7	100	6.000	159
PFD-2638	1,50 - 2,50 mm <sup>2</sup>	0,8 x 6,35	6,6	7,5	21,5	11,0	5,0	2,3	100	6.000	166
PFD-5638	4,00 - 6,00 mm <sup>2</sup>	0,8 x 6,35	6,6	7,5	24,2	13,0	6,5	3,4	100	5.000	235

## Male Disconnectors ( Extra Copper Sleeve )



**Material** : Brass, Tin Plated, Copper Sleeved  
**Insulation** : PVC  
**Operating Temperature** : Maximum 75° 600 Volt



Product Code	Cross-Section mm <sup>2</sup>	Socket Width	Dimensions (mm)						Package Amount (Pcs)	Carton Quantity (Pcs)	Package Weight (~gr)
			W	F	L	B	D	d1			
FE-1288	0,50 - 1,50 mm <sup>2</sup>	0,8 x 2,80	2,8	6,5	19,2	10,5	3,8	1,7	200	12.000	176
FE-1488		0,8 x 4,75	4,8	6,7	19,8	10,5	3,8	1,7	200	12.000	194
FE-1638	1,50 - 2,50 mm <sup>2</sup>	0,8 x 6,35	6,35	7,7	21,8	10,5	3,8	1,7	200	12.000	222
FE-2488		0,8 x 4,75	4,8	6,7	19,8	10,5	4,7	2,3	200	12.000	213
FE-2638	1,50 - 2,50 mm <sup>2</sup>	0,8 x 6,35	6,35	7,7	21,8	10,5	4,7	2,3	200	12.000	242
FE-5638		4,00 - 6,00 mm <sup>2</sup>	0,8 x 6,35	6,35	7,7	24,0	13,0	6,2	3,4	100	6.000

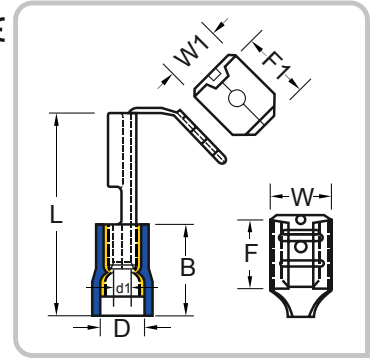
## Piggy Back Disconnectors

### Insulated Cable Terminals

( Extra Copper Sleeve )



**Material** : Brass, Tin Plated, Copper Sleeved  
**Insulation** : PVC  
**Operating Temperature** : Maximum 75° 600 Volt

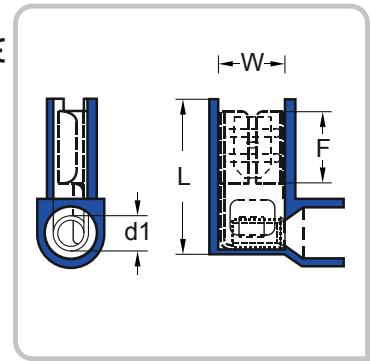


Product Code	Cross-Section mm <sup>2</sup>	Socket Width	Dimensions (mm)								Package Amount (Pcs)	Carton Quantity (Pcs)	Package Weight (~gr)
			W	W1	F	F1	L	B	D	d1			
<b>FDEG-1861</b>	<b>0,50 - 1,50 mm<sup>2</sup></b>	0,8 x 6,35	6,6	6,35	8,0	8,2	22,5	10,5	3,8	1,7	100	6.000	184
<b>FDEG-2862</b>	<b>1,50 - 2,50 mm<sup>2</sup></b>	0,8 x 6,35	6,6	6,35	8,0	8,2	22,5	10,5	4,7	2,3	100	6.000	191
<b>FDEG-5866</b>	<b>4,00 - 6,00 mm<sup>2</sup></b>	0,8 x 6,35	6,6	6,35	8,0	8,2	24,0	13,0	6,2	3,4	100	5.000	241

## Flag Female Disconnectors - Insulated Cable Terminals













**Material** : Brass, Tin Plated, Copper Sleeved  
**Insulation** : Nylon  
**Operating Temperature** : Maximum 105° 600 Volt



Product Code	Cross-Section mm <sup>2</sup>	Socket Width	Dimensions (mm)				Package Amount (Pcs)	Carton Quantity (Pcs)	Package Weight (~gr)
			W	F	L	d1			
<b>PFDEB-1861</b>	<b>0,50 - 1,50 mm<sup>2</sup></b>	0,8 x 6,35	6,6	7,6	16,0	1,7	100	6.000	166
<b>PFDEB-2862</b>	<b>1,50 - 2,50 mm<sup>2</sup></b>	0,8 x 6,35	6,6	7,6	16,0	2,3	100	6.000	170

## Crimping Forms

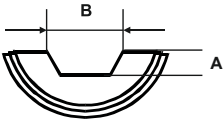
	<b>Hexagonal Crimping</b> standard SKP and connectors, DIN 46235 cable lugs appropriate, suitable 46267 Butt Connectors, Butt Connectors and aluminum cable lugs. Application Range : 6...1000mm <sup>2</sup>
	<b>Point Crimping</b> standard cable lug and connectors, cable ends according to DIN 46234 norm and needle-type cable ends (DIN 46230), insulated cable ends nickel cable lugs and connectors. Application Range : 0.75.....400mm <sup>2</sup>
	<b>Oval Crimping</b> Insulated cable terminals, "C" fittings, clamp-type insulated cable lugs and connectors, pin type insulated cable ends and Butt connectors according to DIN 48217, crimping terminations, insulated cable connectors. Application Range: 0.1....185mm <sup>2</sup>
	<b>Point Crimping</b> standard cable lugs and connectors, thin and multi-core cable lugs. Application Range : 6.....400mm <sup>2</sup>
	<b>Dual-Point Crimping</b> standard cable lugs and connectors, nickel cable lugs and connectors. Application Range : 4....95mm <sup>2</sup>
	<b>Trapezoid Crimping</b> insulated, non-insulated and double-entry cord-end sleeves. Application Range: 0,14....185mm <sup>2</sup>
	<b>Point Crimping</b> insulated, non-insulated and double-entry cord-end sleeves. Application Range: 0.5....35mm <sup>2</sup>
	<b>Square Crimping</b> insulated, non-insulated and double-entry cord-end sleeves. Application Range: 0.14.....6mm <sup>2</sup>
	<b>Roll Crimping</b> non-insulated. terminals and 46228 - Chapter 2 compliant cord-end sleeves. Application Range: 0.1...6mm <sup>2</sup>
	<b>Rounding to 90° ve 120°</b> sector-shaped conductors Application Range: 10...300mm <sup>2</sup> - multi core 35...300mm <sup>2</sup> - single conductor

## Insulation Classes

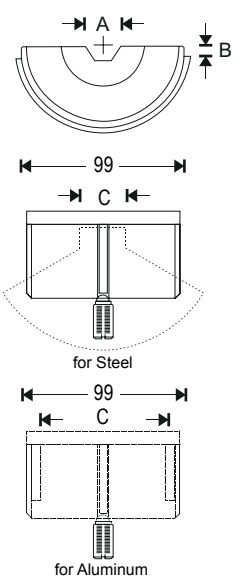
## Degrees of enclosure protection

Symbol	Continuous Operating Temperature C°	Insulation Material	Symbol	First Digit Protection Against Dust	Second Digit Protection Against Water
B	130 C°	Glass fibers, mica products, special synthetic sheets, compressed mineral-filled materials	IP 54	Amount of protection against ingress of damaging dust	Protection against splashing water from any angle
F	155 C°	Glass fibers, mica products, aromatic polyamides, varnishes (polyester) impregnated glass fiber	IP 55 IP 56		Protection against water sprayed from any direction. Protection against water sprayed from a storm or pressure on the deck of the ship.
H	180 C°	Glass fibers, mica products, aromatic polyamides, silicone rubber, teflon	IP 65 IP 66	Complete protection against the ingress of dust	Protection against water sprayed from any direction. Protection against water sprayed from a storm or pressure on the deck of the ship.
C	>180 C°	Mica, porcelain, glass, quartz, teflon	IP 67 IP 68		Protection against immersion and specific period of time in water under pressure. With the provisions of the Manufacturer protection against keeping constant under water.

## Die Dimensions to DIN 48083

DIN 48083	Die Code	Length mm		Cross-Section	
		A (mm)	B (mm)	Al (mm <sup>2</sup> )	Cu (mm <sup>2</sup> )
	KZ4	1,5	3,9	-	4
	KZ5	1,9	5,0	-	6
	KZ6	2,1	5,5	-	10
	KZ8	3,2	8,0	-	16
	KZ10	3,8	9,4	-	25
	KZ12	4,7	11,5	25	35
	KZ14	5,5	13,5	35	50
	KZ16	6,0	15,5	50	70
	KZ18	7,3	18,0	70	95
	KZ20	8,0	19,8	-	120
	KZ22	9,1	22,2	95/120	150
	KZ25	10,2	24,8	150	185
	KZ28	12,0	27,8	185	240
	KZ32	13,6	31,7	240	300
KZ34	14,5	33,7	300	400	

## SHK-110 Die Size

	Die Code	Conductor Type	Dimensions (mm) STEEL			Dimensions (mm) ALUMINUM		
			A (mm)	2B (mm)	C (mm)	A (mm)	2B (mm)	C (mm)
			S13	Drain Wire	13,5	11,70	30,00	-
S14	Drain Wire	14,43	12,50	30,00	-	-	-	
S16	266 MCM (Partridge)	16,00	13,00	30,00	-	-	-	
A27	266 MCM (Partridge)	-	-	-	27,00	24,00	75,00	
S20	477 MCM (Hawk)	19,23	16,66	30,00	-	-	-	
A44	477 MCM (Hawk)	-	-	-	43,47	37,64	75,00	
S22	795 MCM (Drake) 957 MCM (Cardinal)	22,69	19,66	30,00	-	-	-	
A52	"795 MCM (Drake) 957 MCM (Cardinal)	-	-	-	53,29	46,16	75,00	
S26	1272 MCM (Pheasant)	25,58	22,16	30,00	-	-	-	
A60	1272 MCM (Pheasant)	-	-	-	61,37	53,14	75,00	

\* Special size dies can be produced for different steel and Aluminum collars



# Safak<sup>®</sup>

*Perfect Connection..*

## **MOREK**

*Creating a better future for You*

**Morek Group is the official distributor of Safak Elektrik**

**Morek Estonia**  
morek@morek.ee  
+372 6041 423

**Morek Latvia**  
moreklv@morek.eu  
+371 26 186 699

**Morek Czech Republic**  
morek@morek.cz  
+420 727 939 795

**Morek Finland**  
myynti@morek.fi  
+358 40 770 8030

**Morek Lithuania**  
info@morek.lt  
+370 673 82192