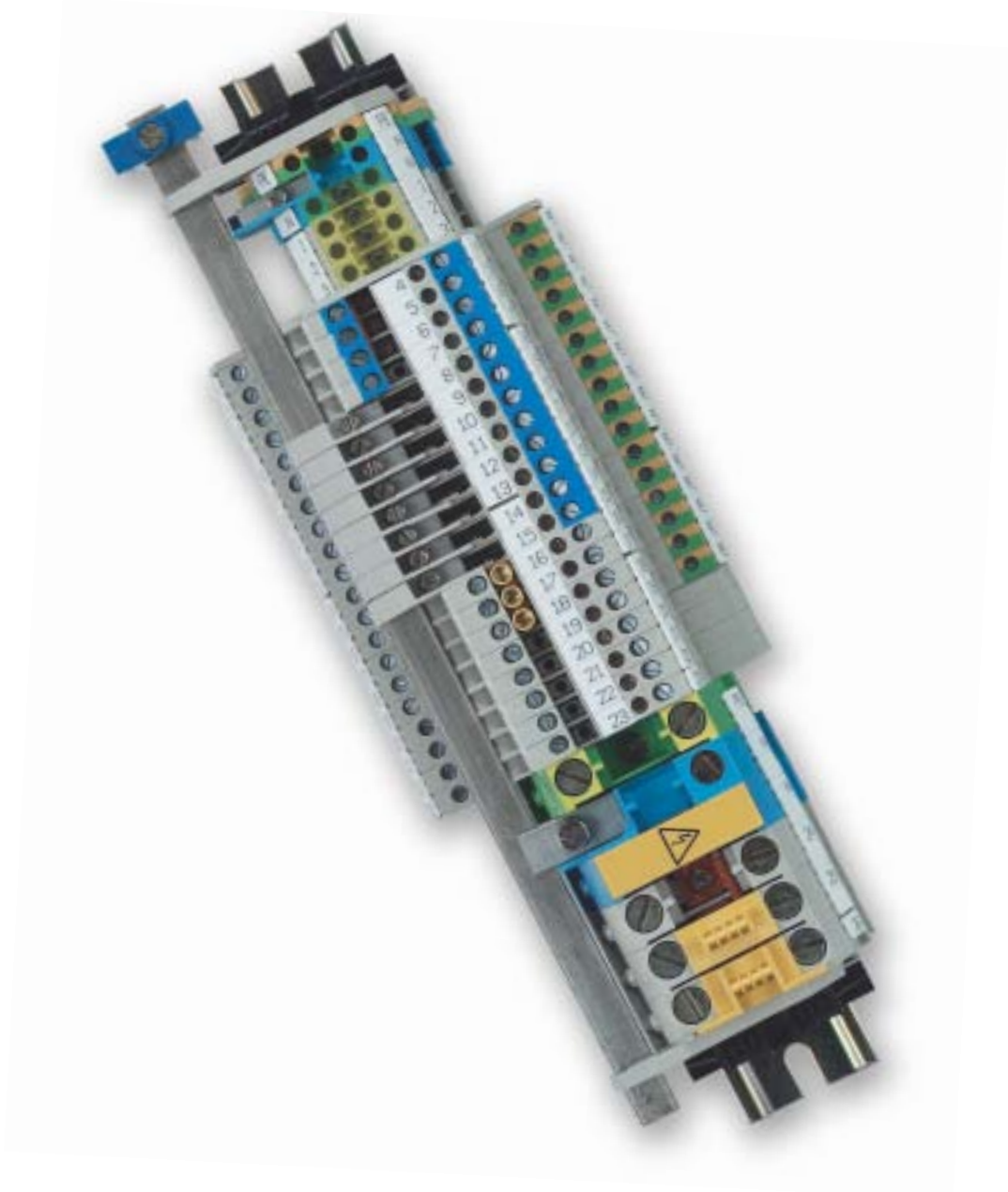


**451 Series Terminal Blocks**



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## 451 Series Terminal Blocks

The 451 Series from GE represents a full line of DIN-rail mounted terminal blocks for the range of applications, from automation and machining equipment to material handling, industrial HVAC, and electrical distribution systems. The line includes screw, spring and insulation displacement contact (IDC) types, along with a full range of accessories, including end stops, jumpers and marking tags.

Captive, touch-safe hardware makes installation fast and safe. Foolproof visual indicators on the feet ensure error-free mounting. The 451 Series also passes 40-year thermal aging and seismic tests and carries worldwide approvals, including UL 94V-0 ratings.

The result of these advanced features is a line of terminal blocks that leads the industry in versatility, reliability and ease of use.

### Type WF spring clamp series

Screwless spring clamp technology ensures tight, robust connections that are protected against movement

Wire entry and screwdriver access are on the same plane, allowing for neat, easy wiring in tight spaces

Test points are built in for all clamping points, so removal of wire is not required to test connection

Metal parts provide low contact resistance and high corrosion resistance

Polyamide insulating material has excellent electrical, chemical and mechanical characteristics and is rated to UL 94V-0

A variety of block styles are available, including feed through, ground, branch and multitier versions

### Type WN screw clamp series

Rising cage clamp technology ensures low contact resistance due to large surface area, while providing a vibration proof contact

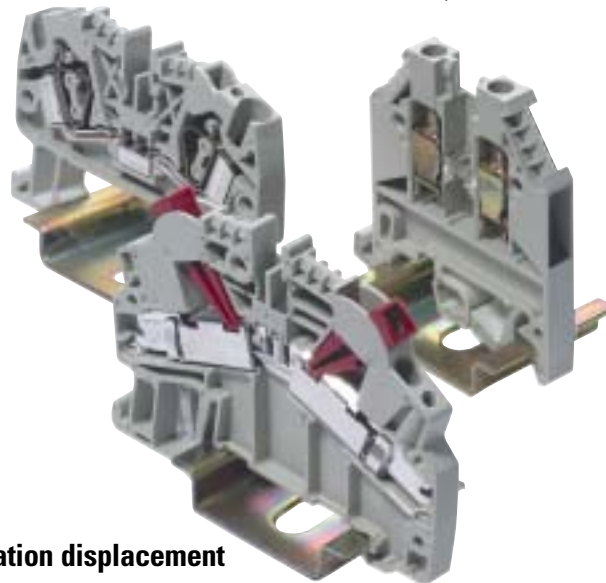
One-piece threaded collar guarantees functionality, even after repeated tightening and loosening of screws

Clamping screws are securely held within the insulated housing to help ensure a secure connection

Metal parts provide low contact resistance and high corrosion resistance

Polyamide insulating material is rated UL 94V-0 and has excellent chemical and mechanical properties

A variety of block styles are available, including feed through, ground, branch and multitier versions



### Type WC insulation displacement contact series

The industry's narrowest blocks provide wide-ranging flexibility in configuration and applications

Secure, gas-tight and vibration-resistant connections are ensured as the contact design moves the clamp to engage the wire

Special alloys and surface treatments make this block ideally suited for use under extreme conditions

Polyamide insulating material is rated UL 94V-0 and has excellent chemical and mechanical properties

A variety of block styles are available, including feed through, ground, branch and multitier versions

#### Applicable Standards

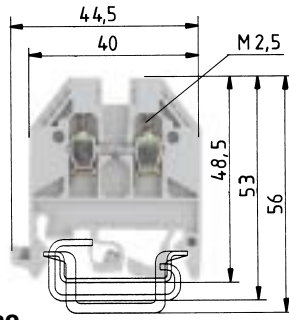
EN 60947-7-1

DIN VDE 0611T1



## SINGLE FEED-THROUGH TERMINAL BLOCK – SCREW TYPE

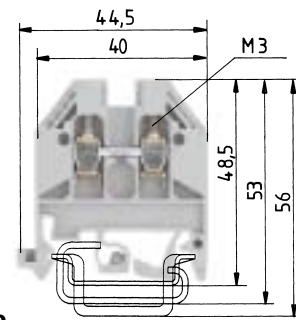
EN 60947-7-1  
DIN VDE 0611T1



**2.5 mm<sup>2</sup>**  
**451WN02G**

Max Wire Size (Fine Stranded)  
UL 600V  
CSA 600V  
Block Width  
Wire Stripping Length

12 AWG/2.5 mm<sup>2</sup>  
22-12 AWG 20A  
24-12 AWG 25A  
0.20" (5 mm)  
0.35" (9 mm)

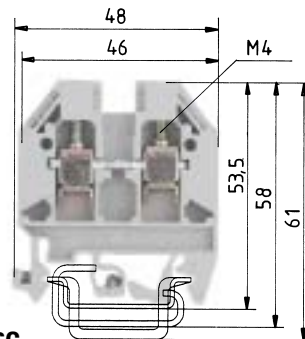


**4 mm<sup>2</sup>**  
**451WN04G**

10 AWG/4 mm<sup>2</sup>  
22-10 AWG 30A  
20-10 AWG 40A  
0.24" (6 mm)  
0.35" (9 mm)

Item	Description	Cat. No.	List Price, GO-10CB	Std. Pkg.	Cat. No.	List Price, GO-10CB	Std. Pkg.
Block	Gray	451WN02G	<b>\$132.36</b>	100	451WN04G	<b>\$150.74*</b>	100
	Blue	451WN02B	<b>132.36</b>	100	451WN04B	<b>150.74</b>	100
DIN Rail, 2 m, slotted	35 mm x 7.5 mm	451DR35075SL2	<b>310.56</b>	20	451DR35075SL2	<b>310.56</b>	20
	35 mm x 15 mm	451DR35015SL2	<b>221.20</b>	10	451DR35015SL2	<b>221.20</b>	10
End Clamps (35 mm)	8 mm - w/ Screw	451WNXEC3508S	<b>179.79</b>	50	451WNXEC3508S	<b>179.79</b>	50
End Plates	1.5 mm Thick	451WNXAP0201S1G	<b>4.69</b>	10	451WNXAP0201S1G	<b>4.69</b>	10
Partitions	1.5 mm Thick	451WNXSP0201S1G	<b>6.32</b>	10	451WNXSP0201S1G	<b>6.32</b>	10
Cross Connectors	2 Pole	451WNXJC0202S	<b>15.89</b>	10	451WNXJC0402S	<b>15.25</b>	10
	3 Pole	451WNXJC0203S	<b>19.19</b>	10	451WNXJC0403S	<b>21.43</b>	10
	10 Pole	451WNXJC0210S	<b>56.87</b>	10	451WNXJC0410S	<b>64.35</b>	10

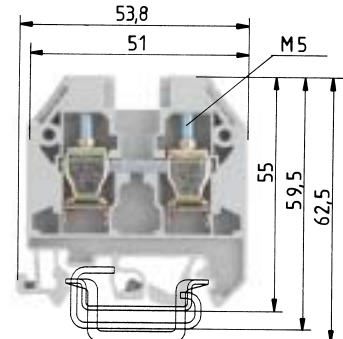
\*Contact GE for volume discounts.



**6 mm<sup>2</sup>**  
**451WN06G**

Max Wire Size (Fine Stranded)  
UL  
CSA  
Block Width  
Wire Stripping Length

8 AWG/6 mm<sup>2</sup>  
600V 22-8 AWG 50A  
600V 20-8 AWG 45A  
0.31" (8 mm)  
0.51" (13 mm)



**10 mm<sup>2</sup>**  
**451WN10G**

6 AWG/10 mm<sup>2</sup>  
600V 16-6 AWG 65A  
600V 16-6 AWG 70A  
0.39" (10 mm)  
0.51" (13 mm)

Item	Description	Cat. No.	List Price, GO-10CB	Std. Pkg.	Cat. No.	List Price, GO-10CB	Std. Pkg.
Block	Gray	451WN06G	<b>\$216.73*</b>	100	451WN10G	<b>\$133.92*</b>	50
DIN Rail, 2 m, slotted	35 mm x 7.5 mm	451DR35075SL2	<b>310.56</b>	20	451DR35075SL2	<b>310.56</b>	20
	35 mm x 15 mm	451DR35015SL2	<b>221.20</b>	10	451DR35015SL2	<b>221.20</b>	10
End Clamps (35 mm)	8 mm - w/ Screw	451WNXEC3508S	<b>179.79</b>	50	451WNXEC3508S	<b>179.79</b>	50
End Plates	1.5 mm Thick	451WNXAP0601S1G	<b>5.33</b>	10	451WNXAP1001S1G	<b>6.22</b>	10
Partitions	1.5 mm Thick	451WNXSP0601S1G	<b>6.54</b>	10	-	-	-
Cross Connectors	2 Pole	451WNXJC0602S	<b>16.15</b>	10	451WNXJC1002S	<b>19.74</b>	10
	3 Pole	451WNXJC0603S	<b>25.75</b>	10	451WNXJC1003S	<b>22.89</b>	10
	10 Pole	451WNXJC0610S	<b>74.89</b>	10	-	-	-

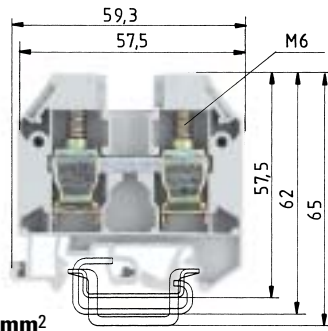
\*Contact GE for volume discounts.

List prices are per standard package quantity. Orders must be standard package quantity or multiples thereof.  
For ferrules, terminal strips, and marking labels and tags, see page 18.  
For additional wire size data, see inside back cover.



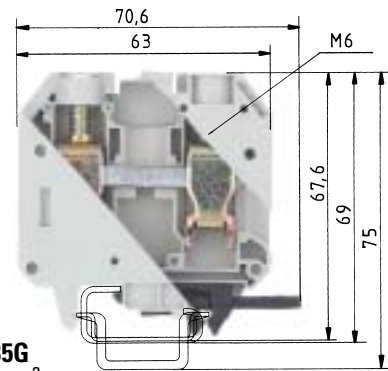
**SINGLE FEED-THROUGH TERMINAL BLOCK – SCREW TYPE**

EN 60947-7-1  
DIN VDE 0611T1



**16 mm<sup>2</sup>**  
**451WN16G**  
4 AWG/16 mm<sup>2</sup>  
12-4 AWG 85A  
14-4 AWG 95A  
0.47" (12 mm)  
0.79" (20 mm)

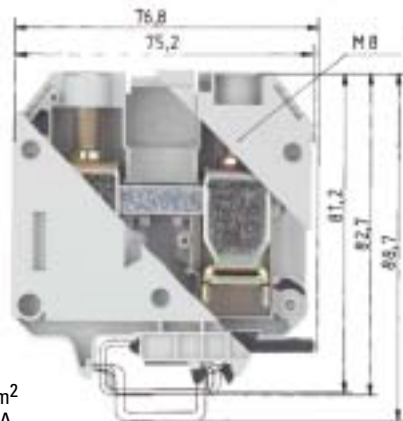
Max Wire Size (Fine Stranded)  
UL 600V  
CSA 600V  
Block Width  
Wire Stripping Length



**35 mm<sup>2</sup>**  
**451WN35G**  
2 AWG/35 mm<sup>2</sup>  
10-2 AWG 95A  
10-2 AWG 110A  
0.63" (16 mm)  
0.79" (20 mm)

Item	Description	Cat. No.	List Price, GO-10CB	Std. Pkg.	Cat. No.	List Price, GO-10CB	Std. Pkg.
Block	Gray	451WN16G	<b>\$188.76*</b>	50	451WN35G	<b>\$191.77*</b>	20
	Blue	451WN16B	<b>188.76</b>	50	–	–	–
DIN Rail, 2 m, slotted	35 mm x 7.5 mm	451DR35075SL2	<b>310.56</b>	20	451DR35075SL2	<b>310.56</b>	20
	35 mm x 15 mm	451DR35015SL2	<b>221.20</b>	10	451DR35015SL2	<b>221.20</b>	10
End Clamps (35 mm)	8 mm - w/ Screw	451WNXEC3508S	<b>179.79</b>	50	451WNXEC3508S	<b>179.79</b>	50
End Plates	2 mm Thick	451WNXAP1602S1G	<b>8.88</b>	10	–	–	–
Cross Connectors	2 Pole	451WNXJC1602S	<b>38.52</b>	10	451WNXJC3502S	<b>24.40</b>	5
	3 Pole	451WNXJC1603S	<b>54.95</b>	10	451WNXJC3503S	<b>36.48</b>	5

\*Contact GE for volume discounts.



**70 mm<sup>2</sup>**  
**451WN70G**  
2/0 AWG/70 mm<sup>2</sup>  
6-2/0 AWG 175A  
6-2/0 AWG 200A  
0.95" (24 mm)  
0.95" (24 mm)

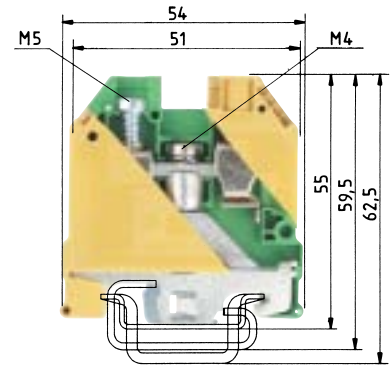
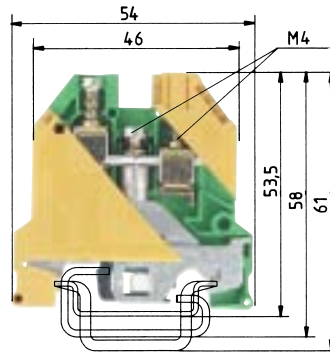
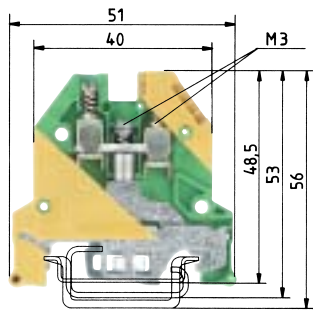
Max Wire Size (Fine Stranded)  
UL 600V  
CSA 600V  
Block Width  
Wire Stripping Length

Item	Description	Cat. No.	List Price, GO-10CB	Std. Pkg.
Block	Gray	451WN70G	<b>\$485.14*</b>	20
DIN Rail, 2 m, slotted	35 mm x 7.5 mm	451DR35075SL2	<b>310.56</b>	20
	35 mm x 15 mm	451DR35015SL2	<b>221.20</b>	10
End Clamps (35 mm)	8 mm - w/ Screw	451WNXEC3508S	<b>179.79</b>	50
Cross Connectors	2 Pole	451WNXJC7002S	<b>50.25</b>	5
	3 Pole	451WNXJC7003S	<b>68.63</b>	5

List prices are per standard package quantity. Orders must be standard package quantity or multiples thereof.  
For ferrules, terminal strips, and marking labels and tags, see page 18.  
For additional wire size data, see inside back cover.

## SINGLE FEED-THROUGH TERMINAL GROUND BLOCK – SCREW TYPE

EN 60947-7-1  
DIN VDE 0611T1



### 4 mm<sup>2</sup> 451WNSL04N

Max Wire Size (Fine Stranded)  
UL 600V  
CSA 600V  
Block Width  
Wire Stripping Length

10 AWG/4 mm<sup>2</sup>  
22-10 AWG  
20-10 AWG  
0.24" (6 mm)  
0.35" (9 mm)

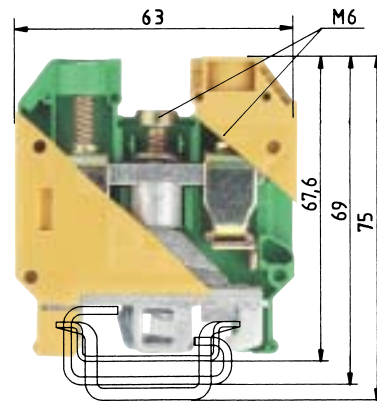
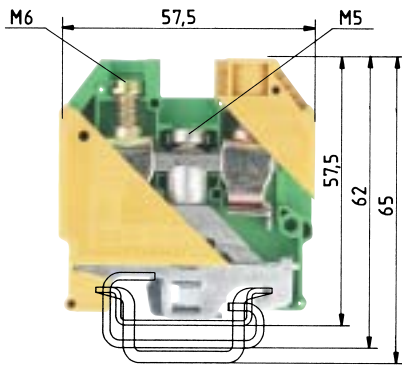
### 6 mm<sup>2</sup> 451WNSL06N

8 AWG/6 mm<sup>2</sup>  
22-8 AWG  
20-8 AWG  
0.31" (8 mm)  
0.51" (13 mm)

### 10 mm<sup>2</sup> 451WNSL10N

6 AWG/10 mm<sup>2</sup>  
16-6 AWG  
16-6 AWG  
0.39" (10 mm)  
0.51" (13 mm)

Item	Description	Cat. No.	List Price, GO-10CB	Std. Pkg.	Cat. No.	List Price, GO-10CB	Std. Pkg.	Cat. No.	List Price, GO-10CB	Std. Pkg.
Block	Green	451WNSL04N	\$459.62	100	451WNSL06N	\$668.79	100	451WNSL10N	\$349.97	50



### 16 mm<sup>2</sup> 451WNSL16N

Max Wire Size (Fine Stranded)  
UL 600V  
CSA 600V  
Block Width  
Wire Stripping Length

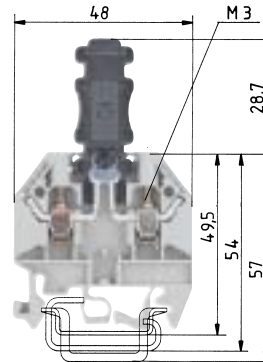
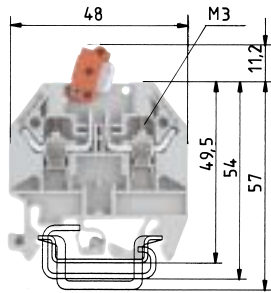
4 AWG/16 mm<sup>2</sup>  
12-4 AWG  
14-4 AWG  
0.47" (12 mm)  
0.79" (20 mm)

### 35 mm<sup>2</sup> 451WNSL35N

2 AWG/35 mm<sup>2</sup>  
10-2 AWG  
10-2 AWG  
0.63" (16 mm)  
0.79" (20 mm)

Item	Description	Cat. No.	List Price, GO-10CB	Std. Pkg.	Cat. No.	List Price, GO-10CB	Std. Pkg.
Block	Green	451WNSL16N	\$435.96	50	451WNSL35N	\$275.49	20

List prices are per standard package quantity. Orders must be standard package quantity or multiples thereof.  
For ferrules, terminal strips, and marking labels and tags, see page 18.  
For additional wire size data, see inside back cover.

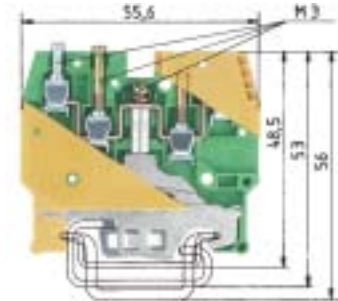
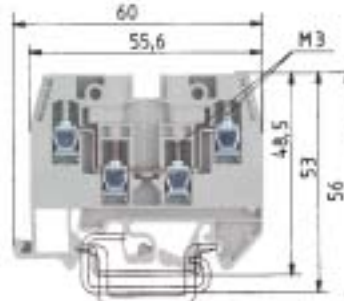
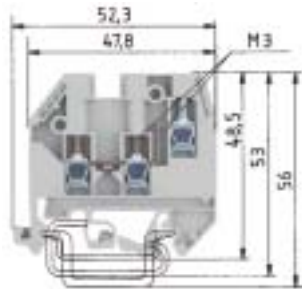
**SINGLE FEED-THROUGH TERMINAL DISCONNECT BLOCK – SCREW TYPE**EN 60947-7-1  
DIN VDE 0611T1**4 mm<sup>2</sup>  
451WNUB04G**

Type Gray Disconnect with Test Bolts  
 Max Wire Size (Fine Stranded) 10 AWG/4 mm<sup>2</sup>  
 UL 600V 22-10 AWG 20A  
 CSA 600V 20-10 AWG 20A  
 Block Width 0.24" (6 mm)  
 Wire Stripping Length 0.35" (9 mm)

**4 mm<sup>2</sup>  
451WNUK04G**

Type Gray Disconnect  
 Max Wire Size (Fine Stranded) 10 AWG/4 mm<sup>2</sup>  
 UL 600V 22-10 AWG 20A  
 CSA 600V 20-10 AWG 20A  
 Block Width 0.24" (6 mm)  
 Wire Stripping Length 0.35" (9 mm)

Item	Cat. No.	List Price, GO-10CB	Std. Pkg.	Cat. No.	List Price, GO-10CB	Std. Pkg.
Block	451WNUB04G	\$494.09	100	451WNUK04G	\$444.65	100

**SINGLE FEED-THROUGH TERMINAL BRANCH BLOCK – SCREW TYPE**EN 60947-7-1  
DIN VDE 0611T1**4 mm<sup>2</sup>  
451WNTS04S12G**

Type Gray, 1 In 2 Out Branch Common  
 Max Wire Size (Fine Stranded) 10 AWG/4 mm<sup>2</sup>  
 UL 600V 22-10 AWG 30A  
 CSA 600V 22-10 AWG 30A  
 Block Width 0.24" (6 mm)  
 Wire Stripping Length 0.31" (9 mm)

**4 mm<sup>2</sup>  
451WNTS04S22G**

Type Gray, 2 In 2 Out Branch Common  
 Max Wire Size (Fine Stranded) 10 AWG/4 mm<sup>2</sup>  
 UL 600V 22-10 AWG 30A  
 CSA 600V 22-10 AWG 30A  
 Block Width 0.24" (6 mm)  
 Wire Stripping Length 0.35" (9 mm)

**4 mm<sup>2</sup>  
451WNTG04S22N**

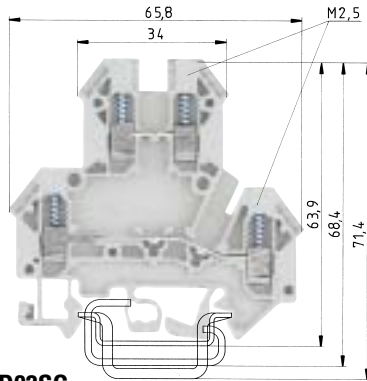
Type Green, 2 In 2 Out Branch Ground  
 Max Wire Size (Fine Stranded) 10 AWG/4 mm<sup>2</sup>  
 UL 600V 22-10 AWG 30A  
 CSA 600V 22-10 AWG 30A  
 Block Width 0.24" (6 mm)  
 Wire Stripping Length 0.35" (9 mm)

Item	Cat. No.	List Price, GO-10CB	Std. Pkg.	Cat. No.	List Price, GO-10CB	Std. Pkg.	Cat. No.	List Price, GO-10CB	Std. Pkg.
Block	451WNTS04S12G	\$256.27	100	451WNTS04S22G	\$297.61	100	451WNTG04S22N	\$719.40	100
End Plates	451WNXAP0401T1G	9.68	10	451WNXAP0401T2G	9.99	10	451WNXAP0401T2G	9.99	10

List prices are per standard package quantity. Orders must be standard package quantity or multiples thereof.  
 For ferrules, terminal strips, and marking labels and tags, see page 18.  
 For additional wire size data, see inside back cover.

## SINGLE FEED-THROUGH TERMINAL MULTITIER BLOCK – SCREW TYPE

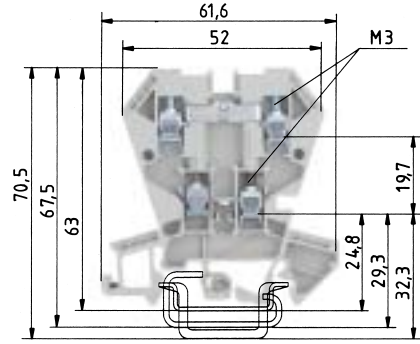
EN 60947-7-1  
DIN VDE 0611T1



**2.5 mm<sup>2</sup>**  
**451WNMD02SG**

Max Wire Size (Fine Stranded)  
UL 600V  
CSA 600V  
Block Width  
Wire Stripping Length

12 AWG/2.5 mm<sup>2</sup>  
22-12 AWG 20/25A  
24-12 AWG 25A  
0.20" (5 mm)  
0.31" (8 mm)



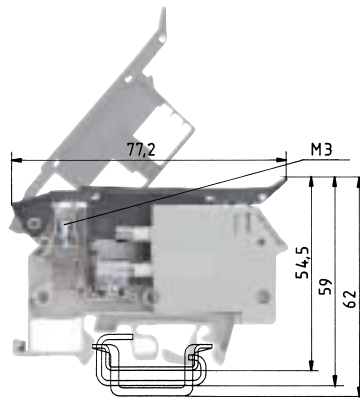
**4 mm<sup>2</sup>**  
**451WNMD04SG**

10 AWG/4 mm<sup>2</sup>  
22-10 AWG 30A  
22-10 AWG 30A  
0.24" (6 mm)  
0.35" (9 mm)

Item	Description	Cat. No.	List Price, GO-10CB	Std. Pkg.	Cat. No.	List Price, GO-10CB	Std. Pkg.
Block	Gray	451WNMD02SG	<b>\$359.30</b>	100	451WNMD04SG	<b>\$359.34</b>	100
	Ground	—	—	—	451WNDG04SN	<b>459.62</b>	100
End Clamps (35 mm)	8 mm - w/ Screw	451WNXEC3508S	<b>179.79</b>	50	451WNXEC3508S	<b>179.79</b>	50
End Plates	1.5 mm Thick	451WNXAP0201MDG	<b>8.52</b>	10	451WNXAP0401MDG	<b>7.09</b>	10
Cross Connectors	2 Pole	451WNXJC0202S	<b>15.89</b>	10	451WNXJC0402M	<b>17.61</b>	10
	3 Pole	451WNXJC0203S	<b>19.19</b>	10	451WNXJC0403M	<b>26.57</b>	10
	10 Pole	451WNXJC0210S	<b>56.87</b>	10	451WNXJC0405M	<b>44.70</b>	10

## SINGLE FEED-THROUGH TERMINAL FUSE BLOCK – SCREW TYPE

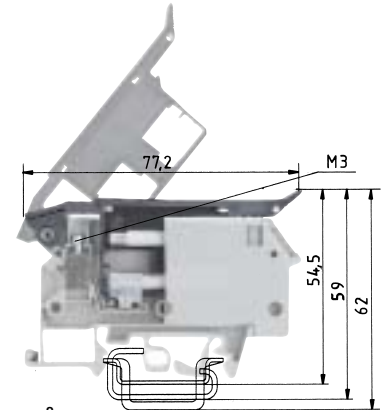
EN 60947-7-1  
DIN VDE 0611T1



**4 mm<sup>2</sup>**  
**451WNFB04A00G**

Max Wire Size (Fine Stranded)  
UL 600V  
CSA 600V  
Block Width  
Wire Stripping Length

10 AWG/4 mm<sup>2</sup>  
22-10 AWG 15A  
22-10 AWG 6.3A  
0.31" (8 mm)  
0.31" (8 mm)



**4 mm<sup>2</sup>**  
**451WNFB04B25G**

10 AWG/4 mm<sup>2</sup>  
22-10 AWG 15A  
22-10 AWG 10A  
0.39" (10 mm)  
0.31" (8 mm)

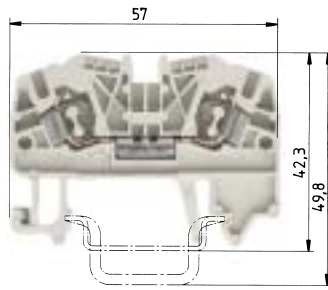
Item	Description	Cat. No.	List Price, GO-10CB	Std. Pkg.	Description	Cat. No.	List Price, GO-10CB	Std. Pkg.
Block	5 mm Fuse Standard	451WNFB04A00G	<b>\$425.15</b>	50	1/4" Fuse Standard	451WNFB04B00G	<b>\$548.83</b>	50
	5 mm Fuse LED 24V	451WNFB04A02G	<b>751.47</b>	50	1/4" Fuse Neon 250V	451WNFB04B25G	<b>919.80</b>	50
	5 mm Fuse Neon 250V	451WNFB04A25G	<b>802.92</b>	50	1/4" Fuse with Indication	451WNFB04B45G	<b>717.16</b>	50
End Clamps (35 mm)	8 mm - w/ Screw	451WNXEC3508S	<b>179.79</b>	50	8 mm - w/ Screw	451WNXEC3508S	<b>179.79</b>	50
End Plates	1.5 mm Thick	451WNXAP0201MDG	<b>8.52</b>	10	1.5 mm Thick	451WNXAP0201MDG	<b>8.52</b>	10
Cross Connectors	10 Pole	451WNXJC0210S	<b>56.87</b>	10	10 Pole	451WNXJC0210S	<b>56.87</b>	10
30 Amp Fuse	30 Amp Fuse	451WNFS30	<b>135.41</b>	12	30 Amp Fuse	451WNFS30	<b>135.41</b>	12

List prices are per standard package quantity. Orders must be standard package quantity or multiples thereof.  
For ferrules, terminal strips, and marking labels and tags, see page 18.  
For additional wire size data, see inside back cover.

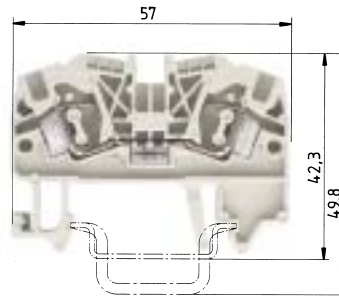


**SINGLE TERMINAL BLOCK – SPRING TYPE**

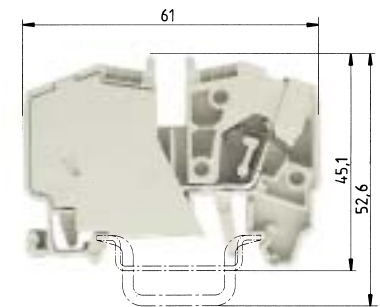
EN 60947-7-1  
DIN VDE 0611T1



**2.5 mm<sup>2</sup>**  
**451WF02G**  
12 AWG/2.5 mm<sup>2</sup>  
22-12 AWG 20A  
24-12 AWG 25A  
0.20" (5 mm)  
0.43" (11 mm)



**4 mm<sup>2</sup>**  
**451WF04G**  
10 AWG/4 mm<sup>2</sup>  
22-10 AWG 30A  
20-10 AWG 35A  
0.24" (6 mm)  
0.43" (11 mm)



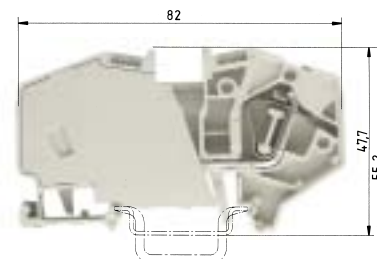
**6 mm<sup>2</sup>**  
**451WF06G**  
8 AWG/6 mm<sup>2</sup>  
22-8 AWG 40A  
20-8 AWG 45A  
0.31" (8 mm)  
0.47" (12 mm)

Max Wire Size (Fine Stranded)  
UL 600V  
CSA 600V  
Block Width  
Wire Stripping Length

Item	Description	Cat. No.	List Price, GO-10CB	Std. Pkg.	Cat. No.	List Price, GO-10CB	Std. Pkg.	Cat. No.	List Price, GO-10CB	Std. Pkg.
Block	Gray	451WF02G	<b>\$132.36</b>	100	451WF04G	<b>\$162.78</b>	100	451WF06G	<b>\$256.56</b>	100
	Blue	451WF02B	<b>132.36</b>	100	451WF04B	<b>162.78</b>	100	–	–	–
DIN Rail, 2 m, slotted	35 mm x 7.5 mm	451DR35075SL2	<b>310.56</b>	20	451DR35075SL2	<b>310.56</b>	20	451DR35075SL2	<b>310.56</b>	20
	35 mm x 15 mm	451DR35015SL2	<b>221.20</b>	10	451DR35015SL2	<b>221.20</b>	10	451DR35015SL2	<b>221.20</b>	10
End Clamps (35 mm)	8 mm – Screwless	451WFEC3508X	<b>79.76</b>	100	451WFEC3508X	<b>79.76</b>	100	451WFEC3508X	<b>79.76</b>	100
End Plates	1.5 mm Thick	451WFAP0401S1G	<b>5.47</b>	10	451WFAP0401S1G	<b>5.47</b>	10	–	–	–
Cross Connectors	2 Pole	451WFJJC0202S	<b>25.83</b>	10	451WFJJC0402S	<b>13.75</b>	10	451WFJJC0602S	<b>15.95</b>	10
	3 Pole	451WFJJC0203S	<b>31.55</b>	10	451WFJJC0403S	<b>16.64</b>	10	–	–	–
	10 Pole	451WFJJC0210S	<b>69.33</b>	20	451WFJJC0410S	<b>70.98</b>	20	–	–	–



**10 mm<sup>2</sup>**  
**451WF10G**  
6 AWG/10 mm<sup>2</sup>  
14-6 AWG 55A  
14-6 AWG 65A  
0.39" (10 mm)  
0.51" (13 mm)



**16 mm<sup>2</sup>**  
**451WF16G**  
4 AWG/16 mm<sup>2</sup>  
12-4 AWG 75A  
14-4 AWG 75A  
0.47" (12 mm)  
0.58" (15 mm)

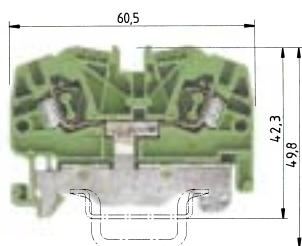
Max Wire Size (Fine Stranded)  
UL 600V  
CSA 600V  
Block Width  
Wire Stripping Length

Item	Description	Cat. No.	List Price, GO-10CB	Std. Pkg.	Cat. No.	List Price, GO-10CB	Std. Pkg.
Block	Gray	451WF10G	<b>\$167.83</b>	50	451WF16G	<b>\$224.42</b>	50
DIN Rail, 2 m, slotted	35 mm x 7.5 mm	451DR35075SL2	<b>310.56</b>	20	451DR35075SL2	<b>310.56</b>	20
	35 mm x 15 mm	451DR35015SL2	<b>221.20</b>	10	451DR35015SL2	<b>221.20</b>	10
End Clamps (35 mm)	8 mm - Screwless	451WFEC3508X	<b>79.76</b>	100	–	–	–

List prices are per standard package quantity. Orders must be standard package quantity or multiples thereof.  
For ferrules, terminal strips, and marking labels and tags, see page 18.  
For additional wire size data, see inside back cover.

## SINGLE TERMINAL GROUND BLOCK – SPRING TYPE

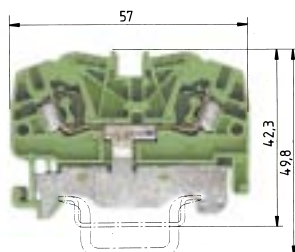
EN 60947-7-1  
DIN VDE 0611T1



**2.5 mm<sup>2</sup>**  
**451WFSL02N**

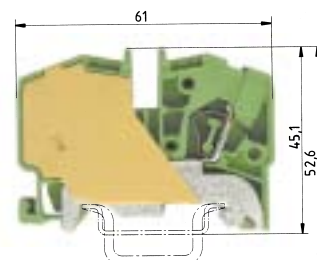
Max Wire Size (Fine Stranded)  
UL 600V  
CSA 600V  
Block Width  
Wire Stripping Length

12 AWG/2.5 mm<sup>2</sup>  
22-12 AWG 20A  
24-12 AWG 25A  
0.20" (5 mm)  
0.43" (11 mm)



**4 mm<sup>2</sup>**  
**451WFSL04N**

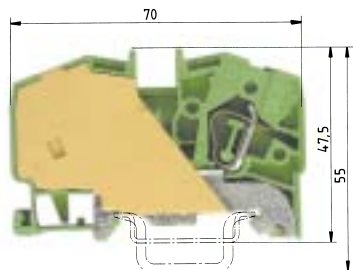
10 AWG/4 mm<sup>2</sup>  
22-10 AWG 30A  
20-10 AWG 35A  
0.24" (6 mm)  
0.43" (11 mm)



**6 mm<sup>2</sup>**  
**451WFSL06N**

8 AWG/6 mm<sup>2</sup>  
22-8 AWG 40A  
20-8 AWG 45A  
0.31" (8 mm)  
0.47" (12 mm)

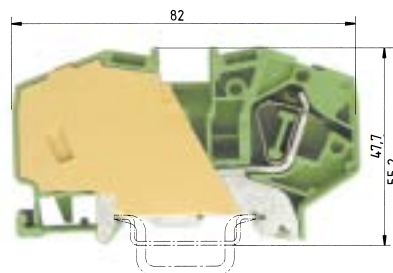
Item	Description	Cat. No.	List Price, GO-10CB	Std. Pkg.	Cat. No.	List Price, GO-10CB	Std. Pkg.	Cat. No.	List Price, GO-10CB	Std. Pkg.
Block	Green	451WFSL02N	<b>\$460.78</b>	100	451WFSL04N	<b>\$460.78</b>	100	451WFSL06N	<b>\$655.89</b>	100
End Plates	1.5 mm Thick	451WFXAP0401S1N	<b>5.47</b>	10	451WFXAP0401S1N	<b>5.47</b>	10	–	–	–



**10 mm<sup>2</sup>**  
**451WFSL10N**

Max Wire Size (Fine Stranded)  
UL 600V  
CSA 600V  
Block Width  
Wire Stripping Length

6 AWG/10 mm<sup>2</sup>  
14-6 AWG 55A  
14-6 AWG 65A  
0.39" (10 mm)  
0.51" (13 mm)



**16 mm<sup>2</sup>**  
**451WFSL16N**

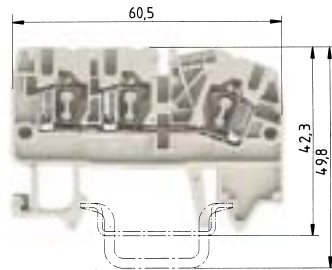
4 AWG/16 mm<sup>2</sup>  
12-4 AWG 75A  
14-4 AWG 75A  
0.47" (12 mm)  
0.58" (15 mm)

Item	Description	Cat. No.	List Price, GO-10CB	Std. Pkg.	Cat. No.	List Price, GO-10CB	Std. Pkg.
Block	Green	451WFSL10N	<b>\$380.68</b>	50	451WFSL16N	<b>\$468.78</b>	50

List prices are per standard package quantity. Orders must be standard package quantity or multiples thereof.  
For ferrules, terminal strips, and marking labels and tags, see page 18.  
For additional wire size data, see inside back cover.

**DUO FEED THROUGH (BRANCH) TERMINAL BLOCK – SPRING TYPE**

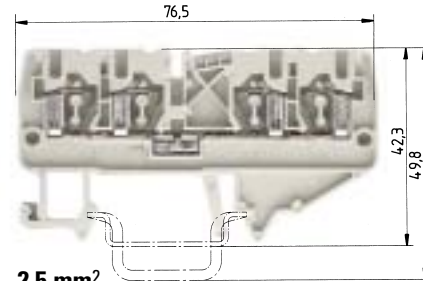
EN 60947-7-1  
DIN VDE 0611T1



**2.5 mm<sup>2</sup>**  
**451WFTS02S12G**

Terminals  
Max Wire Size (Fine Stranded)  
UL 600V  
CSA 600V  
Block Width  
Wire Stripping Length

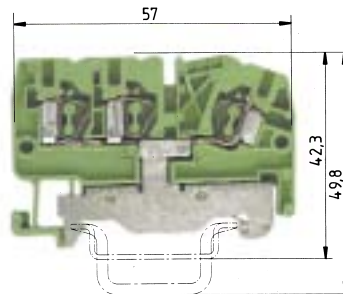
1 in, 2 out  
12 AWG/2.5 mm<sup>2</sup>  
22-12 AWG 25/30A  
24-12 AWG 22A  
0.20" (5 mm)  
0.43" (11 mm)



**2.5 mm<sup>2</sup>**  
**451WFTS02S22G**

2 in, 2 out  
12 AWG/2.5 mm<sup>2</sup>  
22-12 AWG 30A  
24-12 AWG 25A  
0.20" (5 mm)  
0.43" (11 mm)

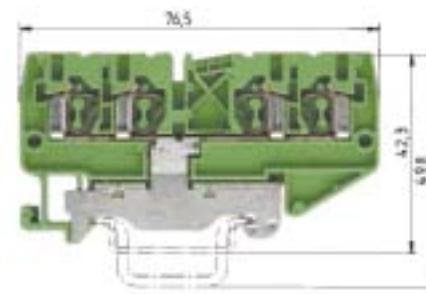
Item	Description	Cat. No.	List Price, GO-10CB	Std. Pkg.	Cat. No.	List Price, GO-10CB	Std. Pkg.
Block	Gray	451WFTS02S12G	<b>\$175.35</b>	100	451WFTS02S22G	<b>\$215.84</b>	100
DIN Rail, 2m, slotted	35 mm x 7.5 mm	451DR35075SL2	<b>310.56</b>	20	451DR35075SL2	<b>310.56</b>	20
	35 mm x 15 mm	451DR35015SL2	<b>221.20</b>	10	451DR35015SL2	<b>221.20</b>	10
End Clamps (35mm)	8 mm - Screwless	451WFEC3508X	<b>79.76</b>	100	451WFEC3508X	<b>79.76</b>	100
End Plates	1.5 mm Thick	451WFXAP0201T1G	<b>6.18</b>	10	451WFXAP0201T2G	<b>6.60</b>	10
Cross Connectors	2 Pole	451WFXJC0202S	<b>25.83</b>	10	451WFXJC0202S	<b>25.83</b>	10
	3 Pole	451WFXJC0203S	<b>31.55</b>	10	451WFXJC0203S	<b>31.55</b>	10
	10 Pole	451WFXJC0210S	<b>69.33</b>	10	451WFXJC0210S	<b>69.33</b>	10



**2.5 mm<sup>2</sup>**  
**451WFTG02S12N**

Terminals  
Max Wire Size (Fine Stranded)  
UL 600V  
CSA 600V  
Block Width  
Wire Stripping Length

1 In 2 Out Ground Block  
12 AWG/2.5 mm<sup>2</sup>  
22-12 AWG  
24-12 AWG  
0.20" (5 mm)  
0.43" (11 mm)



**2.5 mm<sup>2</sup>**  
**451WFTG02S22N**

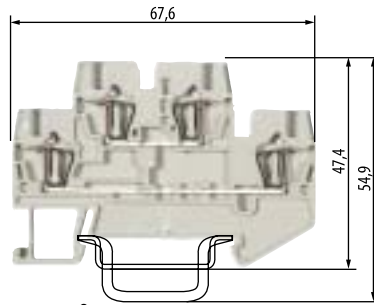
2 In 2 Out Ground Block  
12 AWG/2.5 mm<sup>2</sup>  
22-12 AWG  
24-12 AWG  
0.20" (5 mm)  
0.43" (11 mm)

Item	Description	Cat. No.	List Price, GO-10CB	Std. Pkg.	Cat. No.	List Price, GO-10CB	Std. Pkg.
Block	Green	451WFTG02S12N	<b>\$578.66</b>	100	451WFTG02S22N	<b>\$696.53</b>	100
DIN Rail, 2m, slotted	35 mm x 7.5 mm	451DR35075SL2	<b>310.56</b>	20	451DR35075SL2	<b>310.56</b>	20
	35 mm x 15 mm	451DR35015SL2	<b>221.20</b>	10	451DR35015SL2	<b>221.20</b>	10
End Clamps (35mm)	8 mm - Screwless	451WFEC3508X	<b>79.76</b>	100	451WFEC3508X	<b>79.76</b>	100
End Plates	1.5 mm Thick	451WFXAP0201T1N	<b>6.46</b>	10	451WFXAP0201T2N	<b>6.60</b>	10

List prices are per standard package quantity. Orders must be standard package quantity or multiples thereof.  
For ferrules, terminal strips, and marking labels and tags, see page 18.  
For additional wire size data, see inside back cover.

## HIGH DENSITY MULTITIER TERMINAL BLOCK – SPRING TYPE

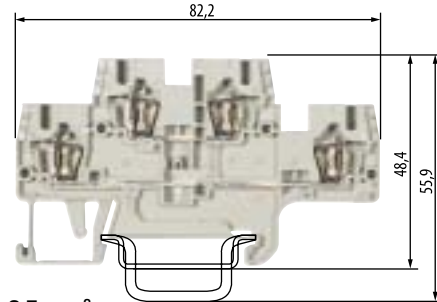
EN 60947-7-1  
DIN VDE 0611T1



**1.5 mm<sup>2</sup>**  
**451WFMD01SG**

Max Wire Size (Fine Stranded)  
UL 300V  
CSA 300V  
Block Width  
Wire Stripping Length

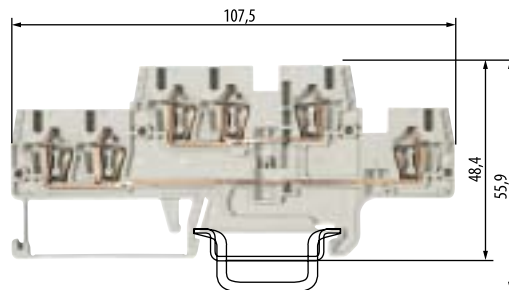
14 AWG/1.5 mm<sup>2</sup>  
26-14 AWG 15A  
26-14 AWG 15A  
0.16" (4 mm)  
0.39" (10 mm)



**2.5 mm<sup>2</sup>**  
**451WFMD02SG**

Field/Factory Wiring  
0.20" (5 mm)  
0.43" (11 mm)

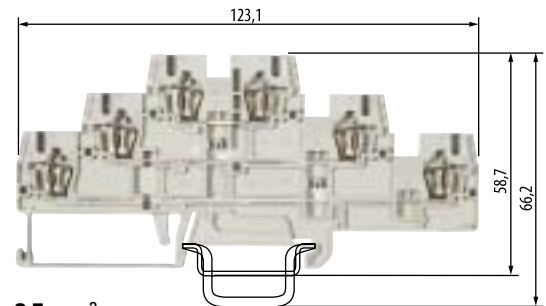
Item	Description	Cat. No.	List Price, GO-10CB	Std. Pkg.	Cat. No.	List Price, GO-10CB	Std. Pkg.
Block	Gray	451WFMD01SG	<b>\$110.80</b>	50	451WFMD02SG	<b>\$288.08</b>	100
	Ground - Green	451WFDG01SN	<b>408.84</b>	50	451WFDG02SN	<b>487.96</b>	100
	Vertical Connection	451WFMD01VG	<b>257.07</b>	50	451WFMD02VG	<b>606.32</b>	100
DIN Rail, 2 m, slotted	35 mm x 7.5 mm	451DR35075SL2	<b>310.56</b>	20	451DR35075SL2	<b>310.56</b>	20
	35 mm x 15 mm	451DR35015SL2	<b>221.20</b>	10	451DR35015SL2	<b>221.20</b>	10
End Clamps (35 mm)	8 mm - Screwless	451WFXEC3508X	<b>79.76</b>	100	451WFXEC3508X	<b>79.76</b>	100
End Plates	1.5 mm Thick	451WFXAP0101MDG	<b>6.87</b>	10	451WFXAP0201MDG	<b>6.74</b>	10
Cross Connectors	1 Pole	—	—	—	451WFXJC0201M	<b>13.54</b>	10
	2 Pole	451WFXJC0102D	<b>5.99</b>	10	451WFXJC0202S	<b>25.83</b>	10
	3 Pole	451WFXJC0103D	<b>10.42</b>	10	451WFXJC0203S	<b>31.55</b>	10
	10 Pole	451WFXJC0110D	<b>49.68</b>	10	451WFXJC0210S	<b>69.33</b>	10



**2.5 mm<sup>2</sup>**  
**451WFDB02S12G**

Max Wire Size (Fine Stranded)  
UL  
CSA  
Block Width  
Wire Stripping Length

Field/Factory Wiring  
0.20" (5 mm)  
0.43" (11 mm)



**2.5 mm<sup>2</sup>**  
**451WFMT02SG**

Field/Factory Wiring  
0.20" (5 mm)  
0.43" (11 mm)

Item	Description	Cat. No.	List Price, GO-10CB	Std. Pkg.	Cat. No.	List Price, GO-10CB	Std. Pkg.
Block	Gray	451WFDB02S12G	<b>\$217.16</b>	50	451WFMT02SG	<b>\$214.34</b>	100
	Ground – Green	451WFDG02S12N	<b>266.96</b>	50	451WFMG02SN	<b>331.99</b>	50
	Vertical Connection	451WFDB02V12G	<b>354.24</b>	50	451WFMG02VG	<b>361.71</b>	50
DIN Rail, 2 m, slotted	35 mm x 7.5 mm	451DR35075SL2	<b>310.56</b>	20	451DR35075SL2	<b>310.56</b>	20
	35 mm x 15 mm	451DR35015SL2	<b>221.20</b>	10	451DR35015SL2	<b>221.20</b>	10
End Clamps (35 mm)	8 mm - Screwless	451WFXEC3508X	<b>79.76</b>	100	451WFXEC3508X	<b>79.76</b>	100
End Plates	1.5 mm Thick	451WFXAP0201D1G	<b>7.62</b>	10	451WFXAP0201MTG	<b>7.74</b>	10
Cross Connector	1 Pole	451WFXJC0201M	<b>13.54</b>	10	451WFXJC0201M	<b>13.54</b>	10
	2 Pole	451WFXJC0202S	<b>25.83</b>	10	451WFXJC0202S	<b>25.83</b>	10

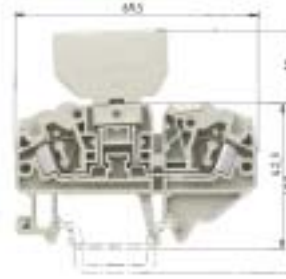
List prices are per standard package quantity. Orders must be standard package quantity or multiples thereof.  
For ferrules, terminal strips, and marking labels and tags, see page 18.  
For additional wire size data, see inside back cover.

**DISCONNECT TERMINAL BLOCK WITH FUSE – SPRING TYPE**

EN 60947-7-1  
DIN VDE 0611T1

Max Wire Size (Fine Stranded)  
UL 300V  
CSA 300V  
Block Width  
Wire Stripping Length

**4 mm<sup>2</sup>**  
**451WFUF04G**  
10 AWG/4 mm<sup>2</sup>  
22-10 AWG 10A  
22-10 AWG 6.3A  
0.24" (6 mm)  
0.43" (11 mm)

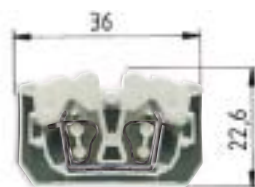


Item	Description	Cat. No.	List Price, GO-10CB	Std. Pkg.
Block	Gray	451WFUF04G	<b>\$458.92</b>	100
DIN Rail, 2 m, slotted	35 mm x 7.5 mm	451DR35075SL2	<b>310.56</b>	20
	35 mm x 15 mm	451DR35015SL2	<b>221.20</b>	10
End Clamps (35 mm)	8 mm - Screwless	451WFXEC3508X	<b>79.76</b>	100
End Plates	1.5 mm Thick for Disconnect Block	451WFXAP0401U1G	<b>6.40</b>	10
	1.5 mm Thick for 1/4" Fuse Cross Connector	451WFXAP0401F2G	<b>23.41</b>	10
Fuse Holders	For 5 mm x 20 Fuse	451WFXFHA00G	<b>32.56</b>	10
	For 5 mm x 20 Fuse LED 24V	451WFXFHA02G	<b>62.38</b>	10
	For 5 mm x 20 Fuse LED 60V	451WFXFHA06G	<b>62.38</b>	10
	For 5 mm x 20 Fuse 250V Neon	451WFXFHA25G	<b>70.22</b>	10
	For 1/4" Fuse	451WFXFHB00G	<b>42.94</b>	10
	For 1/4" Fuse LED 24V	451WFXFHB02G	<b>72.81</b>	10
	For 1/4" Fuse LED 60V	451WFXFHB06G	<b>72.81</b>	10
	For 1/4" Fuse 250V Neon	451WFXFHB25G	<b>80.95</b>	10
Cross Connectors	2 Pole	451WFXJC0402D	<b>5.99</b>	10
	3 Pole	451WFXJC0403D	<b>10.42</b>	10
	10 Pole	451WFXJC0410D	<b>49.68</b>	10
	3 Pole 1/4" Fuse Cross Connector	451WFXJC0403S	<b>15.78</b>	10
	5 Pole 1/4" Fuse Cross Connector	451WFXJC0405S	<b>21.80</b>	10
	7 Pole 1/4" Fuse Cross Connector	451WFXJC0107S	<b>26.50</b>	10

**MINIATURE TERMINAL BLOCK – SPRING TYPE**

EN 60947-7-1  
DIN VDE 0611T1

Max Wire Size (Fine Stranded)  
UL  
CSA  
Block Width  
Wire Stripping Length



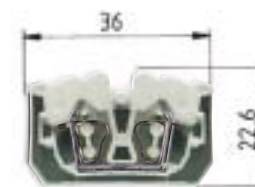
**2.5 mm<sup>2</sup>**  
**451WMC102G**  
12 AWG/2.5 mm<sup>2</sup>

Field/Factory Wiring  
0.20" (5 mm)  
0.43" (11 mm)



**2.5 mm<sup>2</sup>**  
**451WMD102G**  
12 AWG/2.5 mm<sup>2</sup>

Field/Factory Wiring  
0.20" (5 mm)  
0.43" (11 mm)



**2.5 mm<sup>2</sup>**  
**451WMD302G**  
12 AWG/2.5 mm<sup>2</sup>

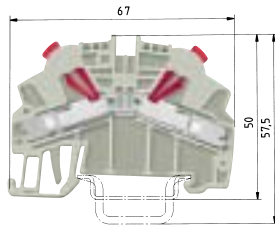
Field/Factory Wiring  
0.20" (5 mm)  
0.43" (11 mm)

Item	Description	Cat. No.	List Price, GO-10CB	Std. Pkg.	Cat. No.	List Price, GO-10CB	Std. Pkg.	Cat. No.	List Price, GO-10CB	Std. Pkg.
Block	Gray	451WMC102G	<b>\$119.62</b>	100	451WMD102G	<b>\$164.74</b>	100	451WMD302G	<b>\$121.06</b>	100
	Gray w/Flange Mount	451WMC202G	<b>121.07</b>	100	451WMD202G	<b>167.68</b>	100	451WMD402G	<b>167.66</b>	100
DIN Rail, 2m, slotted	35 mm x 7.5 mm	451DR35075SL2	<b>310.56</b>	20	451DR35075SL2	<b>310.56</b>	20	451DR35075SL2	<b>310.56</b>	20
	35 mm x 15 mm	451DR35015SL2	<b>221.20</b>	10	451DR35015SL2	<b>221.20</b>	10	451DR35015SL2	<b>221.20</b>	10
End Clamps (35 mm)	8 mm – Screwless	451WFXEC3508X	<b>79.76</b>	100	451WFXEC3508X	<b>79.76</b>	100	451WFXEC3508X	<b>79.76</b>	100
End Plates	1.5 mm Thick	451WMXAP0201S1G	<b>5.39</b>	10	451WMXAP0201M1G	<b>5.80</b>	10	451WMXAP0201S1G	<b>5.39</b>	10
Cross Connectors	2 Pole	451WMXJC0202S	<b>12.38</b>	10	451WMXJC0202S	<b>12.38</b>	10	451WMXJC0202S	<b>12.38</b>	10
Tags	Printed 1-11	–	–	–	–	–	–	451WMXTA0501M	<b>67.59</b>	5
	Printed 11-55	–	–	–	–	–	–	451WMXTA0505M	<b>72.14</b>	5
	Blank Strips	–	–	–	–	–	–	451WMXTA0500U	<b>41.17</b>	5

List prices are per standard package quantity. Orders must be standard package quantity or multiples thereof.  
For ferrules, terminal strips, and marking labels and tags, see page 18.  
For additional wire size data, see inside back cover.

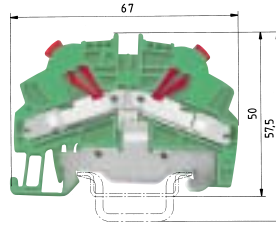
## TERMINAL BLOCK – IDC TYPE

EN 60947-7-1  
DIN VDE 0611T1



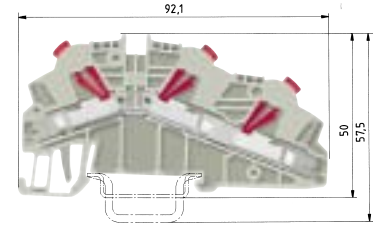
**2.5 mm<sup>2</sup>  
451WC02G**

Gray Feed-thru  
30-18 AWG 13A  
24-18 AWG 13A  
0.31" (6 mm)



**2.5 mm<sup>2</sup>  
451WC02N**

Green Feed-thru Ground  
30-18 AWG 13A  
24-18 AWG 13A  
0.31" (6 mm)

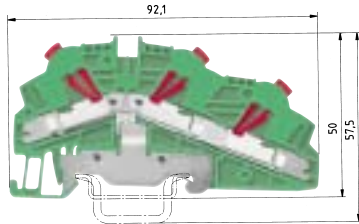


**2.5 mm<sup>2</sup>  
451WCTS02S12G**

Gray Branch  
30-18 AWG 13A  
24-18 AWG 13A  
16-14 AWG  
0.31" (6 mm)

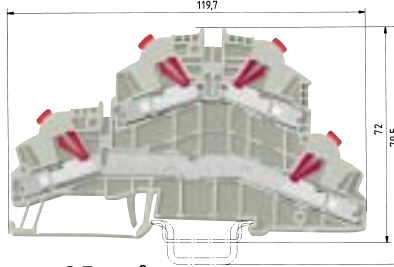
Type  
UL  
CSA  
Block Width

Item	Description	Cat. No.	List Price, GO-10CB	Std. Pkg.	Cat. No.	List Price, GO-10CB	Std. Pkg.	Cat. No.	List Price, GO-10CB	Std. Pkg.
Block		451WC02G	<b>\$188.65</b>	100	451WC02N	<b>\$554.55</b>	100	451WCTS02S12G	<b>\$133.44</b>	50
End Plates	1.5 mm Thick	451WCXAP0201S1G	<b>7.40</b>	10	451WCXAP0201S1N	<b>7.40</b>	10	451WCXAP0201T1G	<b>7.88</b>	10
Cross Connector	2 Pole	451WCXJC0402S	<b>13.75</b>	10	—	—	—	—	—	—
	3 Pole	451WCXJC0403S	<b>16.64</b>	10	—	—	—	—	—	—



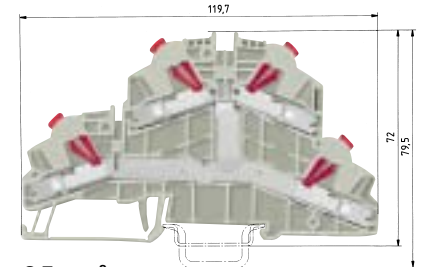
**2.5 mm<sup>2</sup>  
451WCTG02S12N**

Green Branch Ground  
18-14 AWG  
16-14 AWG  
0.31" (6 mm)



**2.5 mm<sup>2</sup>  
451WCMD02SG**

Gray Multitier  
18-14 AWG  
16-14 AWG  
0.31" (6 mm)

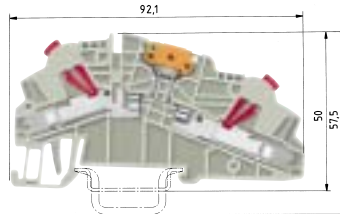


**2.5 mm<sup>2</sup>  
451WCTS02S22G**

Gray Branch Block, 2 In, 2 Out  
18-14 AWG  
16-14 AWG  
0.31" (6 mm)

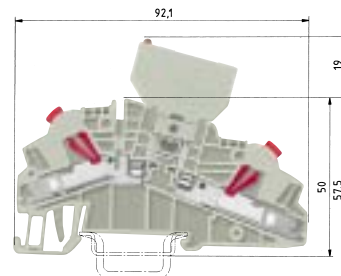
Type  
UL  
CSA  
Block Width

Item	Description	Cat. No.	List Price, GO-10CB	Std. Pkg.	Cat. No.	List Price, GO-10CB	Std. Pkg.	Cat. No.	List Price, GO-10CB	Std. Pkg.
Block		451WCTG02S12G	<b>\$337.69</b>	50	451WCMD02SG	<b>\$241.61</b>	50	451WCTS02S22G	<b>\$314.54</b>	50
End Plates	1.5 mm Thick	451WCXAP0201T1N	<b>7.88</b>	10	—	—	—	451WCXAP0401T2G	<b>11.04</b>	10



**2.5 mm<sup>2</sup>  
451WCTK02G**

Gray Disconnect  
18-14 AWG  
16-14 AWG  
0.31" (6 mm)



**2.5 mm<sup>2</sup>  
451WCUF02G**

Gray Disconnect w/Fuse Holder  
18-14 AWG  
16-14 AWG  
0.31" (6 mm)

Type  
UL  
CSA  
Block Width

Item	Description	Cat. No.	List Price, GO-10CB	Std. Pkg.	Cat. No.	List Price, GO-10CB	Std. Pkg.
Block		451WCTK02G	<b>\$282.22</b>	50	451WCUF02G	<b>\$239.61</b>	50
End Plates	1.5 mm Thick	451WCXAP0201T1G	<b>7.88</b>	10	451WCXAP0201T1G	<b>7.88</b>	10

List prices are per standard package quantity. Orders must be standard package quantity or multiples thereof.  
For ferrules, terminal strips, and marking labels and tags, see page 18.  
For additional wire size data, see inside back cover.

**RELAYS**EN 60947-7-1  
DIN VDE 0611T1

	Cat. No.	List Price, GO-10CB	Cat. No.	List Price, GO-10CB	Cat. No.	List Price, GO-10CB
	451WFPR2D02	\$66.89	451WFPR1D01	\$25.70	451WFPR2D01	\$25.99
Type	DPDT		Pluggable relay		Pluggable relay	
Dimensions (mm) W x H x D	6.2 x 89 x 70		6.2 x 88 x 76		6.2 x 88 x 76	
<b>Coil circuit</b>						
Nominal operating voltage	24V DC		12V DC		24V DC	
Maximum operating voltage	—		14.4V DC		28.8V DC	
Minimum operating voltage	—		9.8V DC		18.2V DC	
Nominal input current	ca. 14 mA		15.2 mA		9.4 mA	
Nominal input capacity AC / DC	ca. 0.35 W		0.2 W		0.23 W	
Holding current at 20°C	> 1.2 mA		—		—	
Operating range	—		(0.7 ... 2.2) UN		(0.7 ... 2.2) UN	
Connectable via plug-in jumper	50 modules		20 modules		20 modules	
Status display	LED green		LED green		LED green	
<b>Switching characteristics</b>						
Maximum switching voltage	250V AC / 300V DC		400V AC		400V AC	
Nominal switching voltage	—		250V AC		250V AC	
Maximum switching current	6A AC / 2A DC		6A AC / DC		6A AC / DC	
Maximum switching capacity	1500 VA / 48 W		1500V A / 150 W		1500V A / 150 W	
Maximum starting current	10A (4 sec.)		30A (0.5 sec.)		30A (0.5 sec.)	
Pickup/dropout delay (including chatter)	8 ms / 10 ms		7 ms / 11 ms		7 ms / 11 ms	
Maximum switching frequency	20 Hz		20 Hz (without load); 0.1 Hz (at full load)		20 Hz (without load); 0.1 Hz (at full load)	
Contact material	AgSnO2		AgSnO2		AgSnO2	
Minimum switchable voltage	24V		12V AC / DC		12V AC / DC	
Minimum switchable current	5 mA		10 mA AC / DC		10 mA AC / DC	
Minimum switching capacity	—		500 mW		500 mW	
Mechanical endurance	2 x 10 <sup>7</sup>		1 x 10 <sup>7</sup>		1 x 10 <sup>7</sup>	
Electrical endurance at 24V DC / 2A	6 x 10 <sup>5</sup>		—		—	
Electrical endurance at 230V AC / 6 A	8 x 10 <sup>4</sup>		6 x 10 <sup>4</sup>		6 x 10 <sup>4</sup>	
Rated voltage	—		250V		250V	
Isolation voltage of input/output	4 kV <sub>eff.</sub>		4 kV <sub>eff.</sub>		4 kV <sub>eff.</sub>	
Overtoltage category	III (in accordance with HD 625.1S1)		III (in accordance with HD 625.1S1)		III (in accordance with HD 625.1S1)	
Degree of pollution	2 (in accordance with HD 625.1S1)		2 (in accordance with HD 625.1S1)		2 (in accordance with HD 625.1S1)	
Ambient temperature	0°C...+50°C		0°C...+50°C		0°C...+50°C	
Storage temperature	-40°C...+55°C		-40°C...+55°C		-40°C...+55°C	
Protection type/mounting rail	IP 20 / TS35		IP 20 / TS35		IP 20 / TS35	
Emitted interference/interference immunity	EN 61000-6-3; EN 61000-6-2		—		—	
Wire range of screw terminal: finely stranded/single core	0.14 mm <sup>2</sup> - 1.5 mm <sup>2</sup>		0.14 mm <sup>2</sup> - 1.5 mm <sup>2</sup>		0.14 mm <sup>2</sup> - 1.5 mm <sup>2</sup>	

## RELAYS

EN 60947-7-1  
DIN VDE 0611T1



	Cat. No.	List Price, GO-10CB	Cat. No.	List Price, GO-10CB	Cat. No.	List Price, GO-10CB
	451WFPR3A01	\$36.84	451WFPR4A01	\$36.84	451WFXRTA	\$111.05
Type	Pluggable relay		Pluggable relay		On delay/Off delay timer	
Dimensions (mm) W x H x D	6.2 x 88 x 76		6.2 x 88 x 76		6.2 x 89 x 70	
<b>Coil circuit</b>						
Nominal operating voltage	115V AC/DC (50/60 Hz)		230V AC/DC (50/60 Hz)		24V DC +10%/-15%	
Control voltage (trigger)	—		—		2V DC +10%/-15%	
Maximum operating voltage	138V		264V		—	
Minimum operating voltage	88V		184V		—	
Nominal input current	5 mA		4 mA		ca. 10 mA	
Nominal input capacity	0.9 VA		0.9 VA		—	
Operating range	(0.8 ... 1.1) UN		(0.8 ... 1.1) UN		—	
Connectable via plug-in jumper	20 modules		20 modules		—	
Status display	LED green		LED green		LED green	
Repeat accuracy	—		—		±1% of selected range	
<b>Switching characteristics</b>						
Maximum switching voltage	400V AC*		400V AC*		250V AC / 300V DC	
Nominal switching voltage	250V AC		250V AC		—	
Maximum switching current	6A		6A		6A AC / 2 A DC	
Maximum switching capacity AC1	1500 VA		1500 VA		1500 VA / 48 W	
Maximum starting current	10A (0.5 sec.)		10A (0.5 sec.)		10A (4 sec.)	
Pickup/dropout delay (including chatter)	7 ms / 11 ms		7 ms / 11 ms		1 ms / 5 ms	
Maximum switching frequency	10 Hz (without load); 0.5 Hz (at full load)		10 Hz (without load); 0.5 Hz (at full load)		20 Hz	
Minimum switchable voltage	12V		12V		12V	
Minimum switchable current	10 mA		10 mA		8 mA	
Minimum switching capacity	500 mW		500 mW		—	
Mechanical endurance AC/DC	1 x 10 <sup>7</sup>		1 x 10 <sup>7</sup>		2 x 10 <sup>7</sup>	
Electrical endurance AC 1	6 x 10 <sup>4</sup>		6 x 10 <sup>4</sup>		6 x 10 <sup>4</sup>	
Rated voltage	250V		250V		—	
Isolation voltage of input/output	4 kV <sub>eff.</sub> /3		4 kV <sub>eff.</sub> /3		4 kV <sub>eff.</sub>	
Overtoltage category	III		III		III	
Degree of pollution	3		3		2	
Ambient temperature	-40°C...+55°C		-40°C...+55°C		0°C...+50°C	
Storage temperature	-40°C...+55°C		-40°C...+55°C		-40°C...+80°C	
Protection type/mounting rail	IP 20 / TS35		IP 20 / TS35		IP 20 / TS35	
Emitted interference/interference immunity	—		—		EN 61000-6-3; EN 61000-6-2	
Wire range of screw terminal: finely stranded/single core	0.25 mm <sup>2</sup> - 2.5 mm <sup>2</sup>		0.25 mm <sup>2</sup> - 2.5 mm <sup>2</sup>		0.5 mm <sup>2</sup> - 2.5 mm <sup>2</sup>	



**POWER SUPPLIES – SINGLE-PHASE SWITCH MODE**

EN 60947-7-1  
DIN VDE 0611T1



	Cat. No.	List Price, GO-10CB	Cat. No.	List Price, GO-10CB
	<b>451WPS02S</b>	<b>\$272.35</b>	<b>451WPS05S</b>	<b>\$491.06</b>
Description	48W power supply, 24V 2A		120W power supply, 24V 5A	
Dimensions (mm) W x H x D	45 x 72 x 105		70 x 138 x 139	
<b>Input</b>				
Nominal input voltage	110 230V AC, 47 63 Hz (universal input)		115/230V AC, 47 63 Hz (selectable input)	
Input voltage range	94 265V AC		93 132V AC, 187 265V AC	
Nominal input current	0.6A at 230V AC/1.1A at 115V AC		0.9A at 230V AC/2.2A at 115V AC	
Input current peak	I/t < 1.5A/s		< 30A	
Power factor cos w	0.45 capacitive at 230V AC/0.5 capacitive at 115V AC		0.5 capacitive at 230V AC/0.58 capacitive at 115V AC	
PFC standard (harmonics)	—		EN 61000-3-2	
<b>Output</b>				
Output voltage	24 V ±3%		24 V ±1%	
Typical output setting range	—		22 30V DC	
Output direct current	0 2A		0 5A	
Max. power output	—		120W (when set to 30V max. 4A)	
Ripple	< 50 mV		< 50 mV	
Typical current limitation	2.5A		6A	
Parallel operation	Yes		Yes	
Efficiency, typical	89%		89%	
Hold-up time	> 70 ms / 230V AC; > 10 ms / 115V AC		> 20 ms / 230V AC; > 15 ms / 115V AC	
Line regulation	< 0.2% at UON ±15%		< 0.2% at UON ±15%	
Load regulation	< 1% at 0A -> >I <sub>nominal</sub>		< 1% at 0A -> >I <sub>nominal</sub>	
Dynamics	< 2 ms at 10 <> 90% I <sub>nominal</sub>		< 2 ms at 10 <> 90% I <sub>nominal</sub>	
Current limitation	Permanently short-circuit proof		Permanently short-circuit proof	
Overrun-proof/open-circuit proof	Yes		Yes	
Output overcurrent switch-off	Yes		Yes	
Output security	VDE 0805/EN 60950/IEC 950/UL 1959 Safety extra-low voltage (SELV) EN 60950		VDE 0805/EN 60950/IEC 950/UL 1959 Safety extra-low voltage (SELV) EN 60950	
Class of protection	Class I at 149002-31001/149002-21001		Class I at 149002-31001/149002-21001	
Degree of protection	IP 20		IP 20	
Leakage current	< 0.25 mA (47 -63 Hz mains frequency)		< 0.75 mA (47 -63 Hz mains frequency)	
Ambient temperature	10 °C...+70 °C at free convection		10 °C...+70 °C at free convection	
Power derating	2.5%/K from +60°C		2.5%/K from +60°C	
Storage temperature	25°C...+85°C		25°C...+85°C	
EMC CE-certified	EN 55011, EN 50082-1/-2		EN 55011, EN 50082-1/-2	
Radio interference suppression	EN 55011/EN 55022 class B		EN 55011/EN 55022 class B	
Static discharge ESD (IEC 1000-4-2)	8 kV contact discharge, 15 kV air discharge		8 kV contact discharge, 15 kV air discharge	
Electromagnetic fields (IEC 1000-4-3)	10 V/m		10 V/m	
Burst (IEC 1000-4-4)	4 kV input, 2 kV output / capacitive coupling		4 kV input, 2 kV output / capacitive coupling	
Surge (IEC 1000-4-5)	4 kV unbalanced, 4 kV balanced		4 kV unbalanced, 4 kV balanced	
Controlled interference type (ENV 50141, IEC 1000-4-6)	10V, 150 kHz...80 MHz		10V, 150 kHz...80 MHz	
Weight	Approx. 0.2 kg		Approx. 0.9 kg	
Installation	Slide for mounting to DIN rail DIN EN 50022-35		Slide for 2 mounting to DIN rail DIN EN 5002-35	
Installation position	Panel-mounted; input connectors on top, output connectors at the bottom		Panel-mounted; input connectors on top, output connectors at the bottom	

## POWER SUPPLIES – SINGLE-PHASE SWITCH MODE

EN 60947-7-1  
DIN VDE 0611T1



	Cat. No.	List Price, GO-10CB	Cat. No.	List Price, GO-10CB
	451WPS10S	\$659.33	451WPS20S	\$829.64
Description	240W power supply, 24V 10A		480W power supply, 24V 20A	
Dimensions (mm) W x H x D	70 x 153.5 x 164		86 x 233 x 173	
<b>Input</b>				
Nominal input voltage	115/230V AC, 47 63 Hz (selectable input)		230V AC, 47 63 Hz	
Input voltage range	93 132V AC, 187 265V AC		190 265V AC	
Nominal input current	1.8A at 230V AC/ 4.2A at 115V AC		3.0A at 230V AC	
Input current peak	< 30A		< 30A	
Power factor cos w	0.5 capacitive at 230V AC/0.58 capacitive at 115V AC		0.82 capacitive at 230V AC	
PFC standard (harmonics)	EN 61000-3-2		EN 61000-3-2	
<b>Output</b>				
Output voltage	24V ±1%		24V ±1%	
Typical output setting range	22 30V DC		23-29V DC	
Output direct current	0 10A		0 20A	
Max. power output	240W (when set to 30V max. 8A)		480W (when set to 29V max. 16A)	
Ripple	< 50 mV		< 50 mV	
Typical current limitation	12A		22A	
Parallel operation	Yes		Yes	
Efficiency, typical	90%		89%	
Hold-up time	> 35 ms / 230V AC; > 30 ms / 115V AC		> 20 ms / 230V AC	
Line regulation	< 0.2% at UON ±15%		< 0.2% at UON ±15%	
Load regulation	< 1% at 0A -> >I <sub>nominal</sub>		< 1% at 0A -> >I <sub>nominal</sub>	
Dynamics	< 2 ms at 10 <> 90% I <sub>nominal</sub>		< 2 ms at 10 <> 90% I <sub>nominal</sub>	
Current limitation	Permanently short-circuit proof		Permanently short-circuit proof	
Overrun-proof/open-circuit proof	Yes		Yes	
Output overcurrent switch-off	Yes		Yes	
Output security	VDE 0805/EN 60950/IEC 950/UL 1959 Safety extra-low voltage (SELV) EN 60950		VDE 0805/EN 60950/IEC 950/UL 1959 Safety extra-low voltage (SELV) EN 60950	
Class of protection	Class I at 149002-31001/149002-21001		Class I at 149002-31001/149002-21001	
Degree of protection	IP 20		IP 20	
Leakage current	< 0.75 mA (47 -63 Hz mains frequency)		< 3.50 mA (47 -63 Hz mains frequency)	
Ambient temperature	10 °C...+70 °C at free convection		10 °C...+70 °C at free convection	
Power derating	2.5%/k from +60°C		2.5%/k from +60°C	
Storage temperature	25°C...+85°C		25°C...+85°C	
EMC CE-certified	EN 55011, EN 50082-1/-2		EN 55011, EN 50082-1/-2	
Radio interference suppression	EN 55011/EN 55022 class B		EN 55011/EN 55022 class B	
Static discharge ESD (IEC 1000-4-2)	8 kV contact discharge, 15 kV air discharge		8 kV contact discharge, 15 kV air discharge	
Electromagnetic fields (IEC 1000-4-3)	10V/m		10V/m	
Burst (IEC 1000-4-4)	4 kV input, 2 kV output / capacitive coupling		4 kV input, 2 kV output / capacitive coupling	
Surge (IEC 1000-4-5)	4 kV unbalanced, 4 kV balanced		4 kV unbalanced, 4 kV balanced	
Conducted interference type (ENV 50141, IEC 1000-4-6)	10V, 150 kHz...80 MHz		10V, 150 kHz...80 MHz	
Weight	Approx. 1.1 kg		Approx. 2.0 kg	
Installation	Slide for DIN rail mounting DIN EN 50022-35		Slide for DIN rail mounting DIN EN 50022-35	
Installation position	Panel-mounted; input connectors on top, output connectors at the bottom		Panel-mounted; input connectors on top, output connectors at the bottom	

**POWER SUPPLIES – THREE-PHASE SWITCH MODE**

EN 60947-7-1  
DIN VDE 0611T1



	Cat. No.	List Price, GO-10CB	Cat. No.	List Price, GO-10CB
	<b>451WPS20H</b>	<b>\$817.97</b>	<b>451WPS40H</b>	<b>\$1,351.42</b>
Description	480W power supply, 24V 20A		960W power supply, 24V 40A	
Dimensions (mm) W x H x D	240 x 153 x 86		292 x 185 x 130	
<b>Input</b>				
Nominal input voltage	3 x 360 500V AC, 47 63 Hz		3 x 360 500V AC, 47 63 Hz	
Input voltage range	3 x 340 550V AC, 47 63 Hz		3 x 340 550V AC, 47 63 Hz	
Nominal input current	3 x 1.5A at 3 x 400V AC		3 x 3A at 3 x 400V AC	
Input current peak	< 50A		< 50A	
Power factor cos w	0.53 capacitive at 400V AC		0.53 capacitive at 400V AC	
<b>Output</b>				
Output voltage	24V DC ±1%		24V DC ±1%	
Typical setting range	22.5-27.5V DC		22.5-27.5V DC	
Output direct current	0 20A		0 40A	
Ripple	< 100 mV		< 100 mV	
Typical current limitation	25A		45A	
Parallel operation	Yes		Yes	
Efficiency, typical	90%		90%	
Hold-up time	> 5 ms / 400V AC		> 5 ms / 400V AC	
Line regulation	< 0.2% at UON ±15%		< 0.2% at UON ±15%	
Load regulation	< 1% at 0A -> >I <sub>nominal</sub>		< 1% at 0A -> >I <sub>nominal</sub>	
Dynamics	< 2 ms at 10 <> 90% I <sub>nominal</sub> , overshoot < 2%		< 2 ms at 10 <> 90% I <sub>nominal</sub> , overshoot < 2%	
Current limitation	Permanently short-circuit proof		Permanently short-circuit proof	
Overrun-proof/open-circuit proof	Yes		Yes	
Output overcurrent switch-off	Yes		Yes	
Output security	VDE 0805/EN 60950/IEC 950/UL 1959 Safety extra-low voltage (SELV) EN 60950		VDE 0805/EN 60950/IEC 950/UL 1959 Safety extra-low voltage (SELV) EN 60950	
Class of protection	Class I		Class I	
Degree of protection	IP 20		IP 20	
Leakage current	< 3.50 mA (47 -63 Hz mains frequency)		< 3.50 mA (47 -63 Hz mains frequency)	
Ambient temperature	0 °C...+70 °C at free convection		0 °C...+70 °C at free convection	
Power derating	2.5%/k from +60°C		2.5%/k from +60°C	
Storage temperature	25°C...+85°C		25°C...+85°C	
EMC CE-certified	EN 50081-1/-2, EN 50082-1/-2		EN 50081-1/-2, EN 50082-1/-2	
Radio interference suppression	EN 55011/EN 55022 class B		EN 55011/EN 55022 class B	
Static discharge ESD (IEC 1000-4-2)	8 kV contact discharge, 15 kV air discharge		8 kV contact discharge, 15 kV air discharge	
Electromagnetic fields (IEC 1000-4-3)	10V/m		10V/m	
Burst (IEC 1000-4-4)	4 kV input, 2 kV output / capacitive coupling		4 kV input, 2 kV output / capacitive coupling	
Surge (IEC 1000-4-5)	4 kV unbalanced, 4 kV balanced		4 kV unbalanced, 4 kV balanced	
Conducted interference type (ENV 50141, IEC 1000-4-6)	10V, 150 kHz...80 MHz		10V, 150 kHz...80 MHz	
Weight	Approx. 1.9 kg		Approx. 3.6 kg	
Installation	Snap-on DIN rail fixation DIN EN 50022-35		Snap-on DIN rail fixation DIN EN 50022-35	
Installation position	Panel-mounted; input connectors on top, output connectors at the bottom		Panel-mounted; input connectors on top, output connectors at the bottom	

## ACCESSORIES – MARKING STRIPS/TAGS

EN 60947-7-1  
DIN VDE 0611T1

Item	Description	Cat. No.	List Price, GO-10CB	Std. Pkg.
Marking Tag made from white polyamide 66/6	Single Tag - Unmarked	451WNXTAU	<b>\$40.46</b>	500
	Single Tag - Marked	451WNXTAM	<b>80.50</b>	500
Marking Strips made from polyamide 66/6, suitable for 10 blocks in a row	5 mm Strip, Unmarked	451WNXTA0501U	<b>2.94</b>	100
	6 mm Strip, Unmarked	451WNXTA0601U	<b>2.94</b>	100
	8 mm Strip, Unmarked	451WNXTA0801U	<b>3.06</b>	100
	5 mm Strip 1-10, Marked	451WNXTA0501M	<b>12.30</b>	100
	6 mm Strip 1-10, Marked	451WNXTA0601M	<b>12.30</b>	100
	8 mm Strip 1-10, Marked	451WNXTA0801M	<b>14.85</b>	100
Terminal Strips - Europa Type 6 EH polyamide 6 ivory	Type 6 EH, 4 mm <sup>2</sup> - 12 Pole	451WNXTS026E	<b>64.79</b>	25
Ferrules (DIN 46 228T4) with insulating sleeves for 0.5 to 25 mm <sup>2</sup> conductors. Sleeve is polypropylene, temperature resistant up to 105°C, tracking resistant. Tube is E-Cu, galvanically tin-plated.	Normal, White 20 AWG	451WNXFE1SW	<b>10.85</b>	100
	Normal, Gray 18 AWG	451WNXFE2SG	<b>11.48</b>	100
	Normal, Red, 18 AWG	451WNXFE2SR	<b>11.66</b>	100
	Normal, Black, 16 AWG	451WNXFE3SL	<b>12.64</b>	100
	Normal, Blue, 14 AWG	451WNXFE4SB	<b>12.71</b>	100
	Normal, Gray, 12 AWG	451WNXFE5SG	<b>22.57</b>	100
	Normal, Yellow, 10 AWG	451WNXFE6SY	<b>25.48</b>	100
	Normal, Red, 8 AWG	451WNXFE7SR	<b>42.17</b>	100
Normal, Blue, 6 AWG	451WNXFE8SB	<b>41.31</b>	100	
DIN Rail, 2 m, slotted	35 mm x 7.5 mm	451DR35075SL2	<b>310.56</b>	20
	35 mm x 15 mm	451DR35015SL2	<b>221.20</b>	10

### Marking Tags and Strips



### Ferrules



### DIN Rails





**451 SERIES TERMINAL BLOCKS – CATALOG NUMBER STRUCTURES**

For use in interpreting catalog numbers only. Do not use for developing catalog numbers, as not all combinations are available. Contact your local GE sales office for availability.

**Terminal Blocks**

GE Line	Block Line	Terminal Size	Color
451	WN	04	G
451	WN = Screw WF = Spring WM = Mini Spring WC = IDC WI = W/Fuse Plug WL = Sensor Plug W/Spring	02 = 2.5 04 = 4 06 = 6 10 = 10 16 = 16 35 = 35 70 = 70	B = Blue G = Gray N = Green

**Ground Blocks**

GE Line	Block Line	Block Type	Terminal Size	Color
451	WN	SL	04	N
451	WN = Screw WF = Spring WM = Mini Spring WC = IDC WI = W/Fuse Plug WL = Sensor Plug W/Spring	SL = Ground	02 = 2.5 04 = 4 06 = 6 10 = 10 16 = 16 35 = 35 70 = 70	B = Blue G = Gray N = Green

**Disconnects**

GE Line	Block Line	Block Type	Terminal Size	Color
451	WN	UK	04	G
451	WN = Screw WF = Spring WM = Mini Spring WC = IDC WI = W/Fuse Plug WL = Sensor Plug W/Spring	UK = Disconnect UT = Bus Bar Disconnect UF = w/Fuse Holder US = w/Diode UB = Disconnect w/Test Bolts	02 = 2.5 04 = 4 06 = 6 10 = 10 16 = 16 35 = 35 70 = 70	B = Blue G = Gray N = Green

**Fuse Blocks**

GE Line	Block Line	Block Type	Terminal Size	Fuse Size	Fuse Indication	Color
451	WN	FB	04	B	00	G
451	WN = Screw WF = Spring WM = Mini Spring WC = IDC WI = W/Fuse Plug WL = Sensor Plug W/Spring	FB = Fuse Block	02 = 2.5 04 = 4 06 = 6 10 = 10 16 = 16 35 = 35 70 = 70	A = 5 mm Fuses B = 1/4" Fuses	00 = No Indication 02 = LED 24V 06 = LED 60V 25 = Neon 250V 35 = LED Indication Built In 45 = Fuse Indication Built In	B = Blue G = Gray N = Green

**Branch Blocks – Duo Feed Through**

GE Line	Block Line	Block Type	Terminal Size	Configuration	Color
451	WN	TS	04	E22	G
451	WN = Screw WF = Spring WM = Mini Spring WC = IDC WI = W/Fuse Plug WL = Sensor Plug W/Spring	TS = Branch Standard TG = Branch Ground TX = Branch Disconnect	02 = 2.5 04 = 4 06 = 6 10 = 10 16 = 16 35 = 35 70 = 70	S12 = Standard 1 in 2 Out S22 = Standard 2 in 2 Out E22 = Standard 1 in 1 Out	B = Blue G = Gray N = Green

**Multitier Blocks**

GE Line	Block Line	Block Type	Terminal Size	Configuration	Color
451	WN	MD	04	S	G
451	WN = Screw WF = Spring WM = Mini Spring WC = IDC WI = W/Fuse Plug WL = Sensor Plug W/Spring	MD = Double MT = Triple DG = Double Ground TG = Triple Ground	02 = 2.5 04 = 4 06 = 6 10 = 10 16 = 16 35 = 35 70 = 70	S = Standard Mount V = Vertical Mount	B = Blue G = Gray N = Green

**Miniature Terminal Blocks – Spring Type**

GE Line	Block Line	Block Type	Terminal Size	Color
451	WM	C1	02	G
451	WM = Mini Spring	C1 = Standard Direct Mount C2 = Direct Mount w/Flange D1 = Duo Modular Direct Mount D2 = Duo Modular w/Flange D3 = Duo Modular Rail Mount D4 = Duo Modular w/o Marking	02 = 2.5	G = Gray



**451 SERIES TERMINAL BLOCKS – CATALOG NUMBER STRUCTURES**

**Relays**

GE Line	Block Line	Block Type	Operating Voltage	# of Changeover Contacts
<b>451</b>	<b>WN</b>	<b>PR</b>	<b>2D</b>	<b>01</b>
451	WN = Screw WF = Spring WM = Mini Spring WC = IDC WI = W/Fuse Plug WL = Sensor Plug W/Spring	SR = Standard Relay PR = Pluggable Relay	1D = 12V DC 2D = 24V DC 1A = 12V AC/DC 2A = 24V AC/DC 3A = 110V AC/DC 4A = 220V AC/DC	01 = 1 02 = 2

**Accessories**

GE Line	Accessory	Accessory Type	Accessory Type	See Accessory Option
<b>451</b>	<b>WNX</b>	<b>EC</b>		
451	WNX = Screw WFX = Spring WMX = Mini Spring WCX = IDC WIX = W/Fuse Plug WLX = Sensor Plug W/Spring	EC = End Clamp AP = End Plate JC = Connector DF = Dead Front TP = Test Plug SP = Snap in Partition MT = Mounting Tool SC = Switchable Connecting Link FE = Ferrules AM = End Plate Mini	TA = Tags FH = Fuse Holder BS = Label Marking Plate DT = Dist. Terminals TS = Terminal Strips RT = Relay Timer	Prefix = Changes by Block Line

**End Plates**

Prefix	Terminal Size	Thickness	Block Type	Color
<b>451WNXAP</b>	<b>04</b>	<b>01</b>	<b>S1</b>	<b>G</b>
451WNXAP	02 = 2.5 04 = 4 06 = 6 10 = 10 16 = 16 35 = 35 70 = 70	01 = 1.5 mm 02 = 2 mm M1 = Mini Spring w/Flange D1 = Double Deck Feed Thru 1/2	MD = Multitier Double MT = Multitier Triple T1 = Branch 1/2 T2 = Branch 2/2 S1 = Standard F1 = 5 mm Fuse F2 = 1/4" Fuse U1 = Disconnect	B = Blue G = Gray N = Green

**Ferrules**

Prefix	Wire Size	Length	Color
<b>451WNXFE</b>	<b>1</b>	<b>S</b>	<b>R</b>
451WNXFE	1 = 22-20 AWG 2 = 18 AWG 3 = 16 AWG 4 = 14 AWG 5 = 12 AWG 6 = 10 AWG 7 = 8 AWG 8 = 6 AWG 9 = 4 AWG 0 = 2 AWG	S = Standard L = Long	B = Blue G = Gray N = Green

**Tags**

Prefix	Size/Pitch	# of Tags	Marked
<b>451WNXTA</b>	<b>05</b>	<b>01</b>	<b>M</b>
451WNXTA	05 = 5 mm 06 = 6 mm 08 = 8 mm 10 = 10 mm	01 = 1-10 02 = 11-20 03 = 21-30 04 = 31-40 05 = 41-50 06 = 51-60 07 = 61-70	08 = 71-80 09 = 81-90 10 = 91-100 11 = 1-100 50 = 1-50 00 = Blank 55 = 11-55

**Terminal Strips**

Prefix	Poles	Size
<b>451WNXTS</b>	<b>01</b>	<b>4E</b>
451WNXTS	01 02 03 04 05 06 07 08 09 10 11 12	4E = 1.5 mm 6E = 4 mm

**Relay Timers**

Prefix	Block Type	Time Range
<b>451WNX</b>	<b>RT</b>	<b>A</b>
451WNX	RT	A = 0.1 to 300 Sec.

**Power Supplies**

GE Line	Block Line	Amp	Color
<b>451</b>	<b>WPS</b>	<b>02</b>	<b>S</b>
451	WPS = Power Supplies	01 = 1.5 Amp 02 = 2 Amp 05 = 5 Amp 10 = 10 Amp 20 = 20 Amp 40 = 40 Amp	S = Standard H = Horizontal

**DIN Rails**

GE Line	Accessory	Width	Height	Style	Length
<b>451</b>	<b>DR</b>	<b>35</b>	<b>055</b>	<b>SL</b>	<b>2</b>
451	DR	15 = 15 mm 32 = 32 mm 35 = 35 mm	055 = 5.5 075 = 7.5 015 = 15	SL = Slotted SD = Solid	1 = 1 mm 2 = 2 mm

**End Clamps**

Prefix	DIN Rail Size	Width	Screw
<b>451WNXEC</b>	<b>35</b>	<b>07</b>	<b>S</b>
451WNXEC	35 = 35 32 = 32	07 = 7.5 mm 08 = 8 mm 10 = 10 mm	S = Screw X = No Screw U = U Foot

**Cross Connectors**

Prefix	Terminal Size	Poles	Block Type
<b>451WNXJC</b>	<b>04</b>	<b>02</b>	<b>S</b>
451WNXJC	02 = 2.5 04 = 4 06 = 6 10 = 10 16 = 16 35 = 35 70 = 70	01 = 1 Terminal 02 = 2 Terminals 03 = 3 Terminals 10 = 10 Terminals	S = Standard M = Multitier D = Dual

**Deadfronts**

Prefix	Terminal Size
<b>451WNXDF</b>	<b>04</b>
451WNXDF	02 = 2.5 04 = 4 06 = 6 10 = 10 16 = 16 35 = 35 70 = 70

**Test Plugs**

Prefix	Terminal Size
<b>451WNXTP</b>	<b>04</b>
451WNXTP	02 = 2.5 04 = 4 06 = 6 10 = 10 16 = 16 35 = 35 70 = 70

**Mounting Tool**

Prefix	Terminal Size
<b>451WNXMT</b>	<b>04</b>
451WNXMT	02 = 2.5 04 = 4 06 = 6 10 = 10 16 = 16 35 = 35 70 = 70

**Marking Labels**

Prefix	Plate
<b>451WNXBS</b>	<b>MP</b>

**Fuse Holders**

Prefix	Fuse Size
<b>451WNXFH</b>	<b>B</b>
451WNXFH	A = 5 mm B = 1/4"

**TECHNICAL DATA****Standard Cross Sections of Round Copper Conductors**

Metric size ISO mm <sup>2</sup>	AWG	mm <sup>2</sup>
1.5	16	1.3
2.5	14	2.1
4	12	3.3
6	10	5.3
10	8	8.4
16	6	13.3
25	4	21.2
35	2	33.6
50	(1/0) 0	53.5
70	(2/0) 00	67.4

**Design and Dimensions of Fine Stranded and Solid Copper Conductors**

Excerpt from DIN VDE 0295 (06.92)

Nominal cross-section (mm <sup>2</sup> )	Fine Stranded		Stranded		Solid	
	Diameter max. size	No. of wires	Diameter max. size	No. of wires	Diameter max. size	No. of wires (guide value)
1.5	1.8	1	—	—	1.5	1
2.5	2.3	1	—	—	1.9	1
4	2.9	1	—	—	2.4	1
6	3.9	1	—	—	2.9	1
10	5.1	1	4.2	7	3.7	1
16	6.3	1	5.3	7	4.6	1
25	7.8	—	6.6	7	—	—
35	9.2	—	7.9	7	—	—
50	11	—	9.1	19	—	—
70	13.1	—	11	19	—	—

**Current Carrying Capacity of Cables or Wires**

Recommended values for the current carrying capacity of cables or wires for fixed installation and external mounting have been taken from DIN VDE 0298 part 4/11.98 together with the modifications in draft DIN VDE 0298 part 4 A1/03.00 and are contained in supplement 1 to DIN VDE 0100 part 430, converted at 25 °C.

**Current Carrying Capacity of DIN Rail Terminal Blocks**

This table applies to DIN rail terminal blocks and copper conductors: Test currents according to DIN EN 60 947-7-1/VDE 0611 part 1: 2000-05

The rated cross section of a DIN rail terminal block is the value indicated by the manufacturer of the connectable conductor cross section to which specific thermal, mechanical and electrical requirements refer.

The rated connecting capacity of a DIN rail terminal block is a range and/or a number of rated cross sections that the terminal block is intended for. It should be indicated for each terminal block separately. The conductors can be rigid (solid or stranded) or flexible. The data pertains to unprepared conductor ends without ferrules and includes the largest and smallest connectable conductor cross sections. In general it is possible to connect two conductors with the same cross section and design.

Rated cross-section mm <sup>2</sup>	Test current A
1.5	17.5
2.5	24
4	32
6	41
10	57
16	76
25	101
35	125
50	150
70	192

For DIN rail terminal blocks with special functions, the rated current from the manufacturer has been determined according to the requirements of the special functions. Special functions can be given by pluggable connections, isolating points, fuses, relays or electronic components. The current carrying capacity of other terminal blocks has been fixed and assessed following the above specifications according to EN 60 999/VDE 0609 part 1 or EN 60 998-1/VDE 0613 part 1 or EN 60 335-1/DIN VDE 0700 part 1, as far as they are relevant.

**Torque**

Excerpt from EN 60 947: Tightening torques for verification of mechanical stability of screw connections

Thread diameter (mm)		Tightening torque (lb-ft)*		
Metric standard values	Diametrical range	I	II	III
2.5	≤ 2.8	0.15	0.30	0.30
3.0	> 2.8 through 3.0	0.18	0.37	0.37
—	> 3.0 through 3.2	0.22	0.44	0.44
3.5	> 3.2 through 3.6	0.30	0.59	0.59
4	> 3.6 through 4.1	0.52	0.89	0.89
4.5	> 4.1 through 4.7	0.59	1.33	1.33
5	> 4.7 through 5.3	0.59	1.48	1.48
6	> 5.3 through 6.0	0.89	1.84	2.21
8	> 6.0 through 8.0	1.84	2.58	4.43
10	> 8.0 through 10.0	—	2.95	7.38
12	> 10.0 through 12.0	—	—	10.3
14	> 12 through 15	—	—	14.0
16	> 15 through 20	—	—	18.4
20	> 20 through 24	—	—	26.6
24	> 24	—	—	36.9

\* I = Headless screws that do not protrude from the threaded hole and that are driven by screwdrivers with tips smaller than the screws' thread core diameter.

II = Nuts and screws that are tightened with a screwdriver.

III = Nuts and screws that can be tightened with tools other than a screwdriver



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