

# Wiring - power terminals

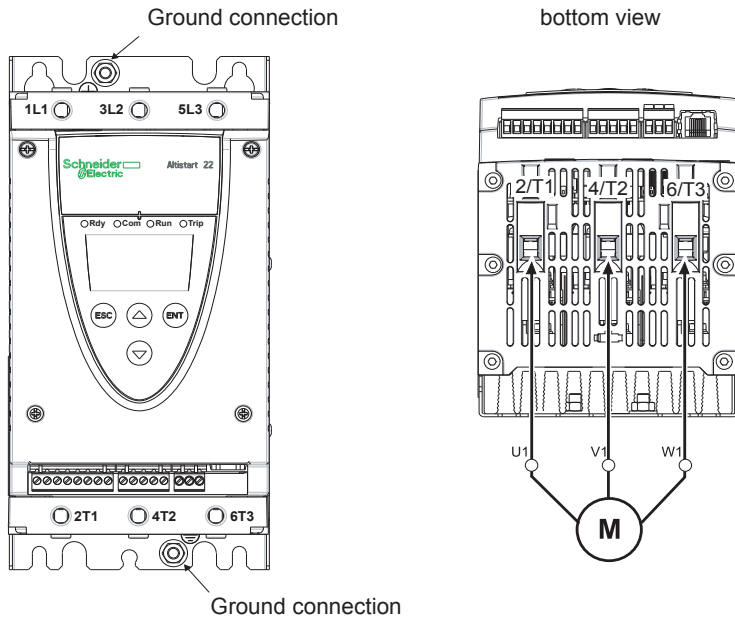
## Power

Observe the cable cross-sectional areas recommended in the standards.

The soft starter must be grounded to conform to the regulations concerning leakage currents. If the installation involves several soft starters on the same line, each soft starter must be grounded separately.

Keep the power cables separate from circuits in the installation with low-level signals (sensors, PLCs, measuring devices, video, telephone).

## Cage style connectors for frame sizes A and B



### Ground connections, screw size

Frame size	Screw
A	M6
B	M6
C	M6
D	M10
E	M10

## Power connections, minimum and maximum wiring capabilities, tightening torque

Frame size	ATS22	IEC cable					UL cable				
		1/L1 3/L2 5/L3 and 2/T1 4/T2 6/T3 power supply and output to motor					1/L1 3/L2 5/L3 and 2/T1 4/T2 6/T3 power supply and output to motor				
		Size		Tightening torque		Strip length	Gauge		Tightening torque		Strip length
		min.	max.	min.	max.		min.	max.	min.	max.	
mm <sup>2</sup>	mm <sup>2</sup>	N·m	N·m	mm	AWG	AWG	lb·in	lb·in	in.		
A	D17, D32, D47	2.5	16	3	3	10	12	4	26	26	0.4
B	D62, D75, D88	4 (a)	50	10	10	15	10 (a)	1/0	89	89	0.6

(a) The cable gauge affects the IP protection of the soft starter. To keep IP20 value with a connected cable on frame B, the minimum cable gauge is: 16 mm<sup>2</sup> or 4 AWG.

Allen key, supplied with size B products

## ⚠ DANGER

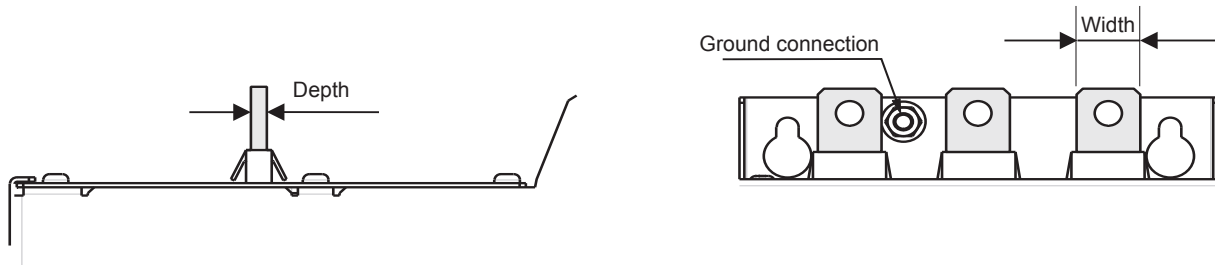
### FIRE HAZARD DUE TO LACK OF TIGHTENING TORQUE

- Ensure correct connector tightening torque for power terminals.
- For size B, use the Allen key provided with the product.

**Failure to follow these instructions will result in death or serious injury.**

# Wiring - power terminals

## Bus bar connections for frame sizes C to E



Frame Size	ATS22	1/L1 3/L2 5/L3 and 2/T1 4/T2 6/T3 power supply and output to motor							
		Bar			Cable and cover				
		Width	Depth	Bolt	Size	Gauge	Cover	Tightening torque	
		mm (in.)	mm (in.)	M	mm <sup>2</sup>	MCM	Ref	N·m	lb·in
C	<b>C11, C14, C17</b>	20 (0.79)	5 (0.2)	8 (0.31)	95	250	LA9F702	18	159
D	<b>C21, C25, C32, C41</b>	30 (1.18)	5 (0.2)	12 (0.47)	2x150	2x250	LA9F703	57	503
E	<b>C48, C59</b>	40 (1.57)	5 (0.2)	12 (0.47)	2x240	2x500	LA9F703	57	503

For more details, see Dimensions and weights paragraph page [14](#).