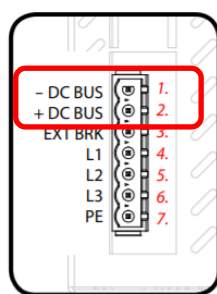




DC 300V 直流電源應用的連接及使用流程

Date: October 8th, 2020.

1. 本文介紹使用 DC 300V 直流電流做為主電源輸入, HDT 的連接及使用流程.
2. DC 24 V 的直流電源仍需要, 輸入到 logic 迴路.
3. **特別要注意: 此類應用, 直流 DC 300V 必須先對 HDT 驅動器做預充電, pre-charge, 就是連接 DC 300V 主電源後, 先將輸入 HDT 驅動器的電流值限制在 1A~2A 左右, 大約 10~15 秒後, 母線電壓 DC BUS voltage 就會達到 DC 300V. 此後, 才可以放開輸入電流的限制, 然後就可以正常使用.** 正常使用時, 電源供應最大電流值建議不要大於 12A. 再次提醒, 每次開機後, 先要執行預充電 pre-charge 後, 才可以正常使用. 最大電壓值為 DC 320V, 最低電壓值為 DC 200V.
4. **DC 電源線要使用具有防干擾隔離網型電線, 並且要將隔離網雙邊都要接地後, 才使用.**
5. 在 J7 接頭區域, 分別在 pin 2 及 pin1 接上直流 DC 300V 主電源的正極及負極, 注意正負極要接正確. 如下圖所示.
6. 電源線正確連接後, 每次開機後, 請先對 HDT 驅動器執行預充電, pre-charge, 大約 10~15 秒後, 執行後始可以正常使用. (預充電, pre-charge, 就是連接 DC 300V 主電源後, 先將輸入 HDT 驅動器的電流值限制在 1A~2A 左右, 大約 10~15 秒後, 母線電壓 DC BUS voltage 就會達到 DC 300V. 此後, 才可以放開輸入電流的限制, 然後就可以正常使用.)

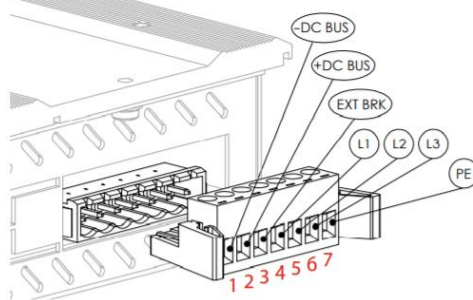


Connector TYPE	Drive power supply and external braking resistor
Utility	Power supply input and external braking resistor connection
N° pins	7

PIN	J7 connector description		
1	- DC BUS	Connection for DC power supply	
2	+ DC BUS		
3	EXT BRK	External braking resistor connection	
4	L1	Connection for AC power supply: • L1 - L2 for single phase drive version • L1 - L2 - L3 for triphase drive version	
5	L2		
6	L3		
7	PE	Drive power supply, Power Earth	

5.09.1 Cable for J7

Wiring connections and pins numbering for J7 connector is shown below, according to previous table:



Power cable choice must be performed in function of absorbed motor current. Recommended cable section is shown below in function of drive size:

Size	Section - mm ² (AWG)
TMC240EVO 2/4	1 mm ² (AWG17)
TMC240EVO 4/8	2.5 mm ² (AWG13)
TMC240EVO 6/12	2.5 mm ² (AWG13)
TMC460EVO 1.5/3	1 mm ² (AWG17)
TMC460EVO 3/6	1.5 mm ² (AWG15)

NOTE:

- If DC power supply or DC linked configuration is used, it's recommended to use shielded cable; please connect shields to earth both side of connection.
- Monitored Voltage and resistors: for information, see "8.03 Diagnostics" pag. 112.

4.05 External DC link power supply



Connect DC link only if DC or AC supply is the same.

If only DC link power supply is used, it's mandatory to perform an external DC precharge procedure for all connected drives, limiting peak precharge current to 10Amps.

If AC power supply with DC linked is used, it's mandatory to connect AC power supply to all connected drives (external precharge is not necessary).

If external braking resistor is used, connect it to only one drive.



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