

### 3.4 List of complete pin-out

Refer to following tables for a complete AC-L1 controller K1 and K2 connectors pin-out.

K1 connector pin-out for AC-L1				SPECIFICATIONS
Pin	Name	I/O	Specification	Typical Function
1	KEY SWITCH IN	Supply Input	Rated battery +25/-30%, 6Amax	Positive supply of the control section of the AC-L1
2	DIGITAL IN 1	Digital Input	4mA pull-up, VL<=1V, VH>=3,5V	TO BE ASSIGNED
3	DIGITAL IN 2	Digital Input	4mA pull-up, VL<=1V, VH>=3,5V	TO BE ASSIGNED
4	DIGITAL IN 3	Digital Input	4mA pull-up, VL<=1V, VH>=3,5V	TO BE ASSIGNED
5	DIGITAL IN 4	Digital Input	4mA pull-up, VL<=1V, VH>=3,5V	TO BE ASSIGNED
6	DIGITAL IN 5	Digital Input	4mA pull-up, VL<=1V, VH>=3,5V	TO BE ASSIGNED
7	DIGITAL IN 6	Digital Input	4mA pull-up, VL<=1V, VH>=3,5V	TO BE ASSIGNED
8	DIGITAL OUT 1	Digital Output	Low side 0,5A	TO BE ASSIGNED
9	COIL RETURN	Supply Output	High side 5A max	Positive common
10	RS-232 RX	Com Input	-	Serial port
11	RS-232 TX	Com Output	-	Serial port
12	DIGITAL IN 7	Digital Input	4mA pull-up, VL<=1V, VH>=3,5V	TO BE ASSIGNED
13	DIGITAL IN 8	Digital Input	4mA pull-up, VL<=1V, VH>=3,5V	TO BE ASSIGNED
14	LIN IN/OUT	Com Input/Output	12mA pull-up	LIN display connection
15	CAN-H	Com Input/Output	CAN-bus	CAN H (No internal termination resistor)
16	DRIVER OUT 1	PWM Output	Low side 2A	TO BE ASSIGNED
17	DRIVER OUT 2	PWM Output	Low side 1,5A	TO BE ASSIGNED
18	I/O GROUND	-	-	Negative logic supply
19	DIGITAL OUT 2	Digital Output	Low side 1,5A	TO BE ASSIGNED
20	DRIVER OUT 3	PWM Output	Low side 1,5A (*)	TO BE ASSIGNED
21	+12V OUT	Supply Output	12V 300mAmax	12V supply
22	CAN GROUND	-	-	CAN- bus negative supply
23	CAN-L	Com Input/Output	CAN-bus	CAN L (No internal termination resistor)

(\*) If an inductive load is connected to the driver output 3 (K1-20), there is the necessity to add an external freewheeling diode anti-parallel connected as described in the wiring diagrams.

Driver output 3 (K1-20) must be connected to the +B or to another supply source with the negative reference connected to the -B.

Driver out 1 (K1-16) and driver out 2 (K1-17) must be connected to the COIL RETURN.