

INDICATIONS FOR THE CHOICE OF BUS CABLE

The devices of the Orion system require a 12V dc power supply and the BUS connection. A total of 4 wires.

The Orion bus uses the EIA-485 standard (formerly known as RS-485), so the first choice is to use cables specifically created for this type of bus.

- The ideal installation is given by a cable RED/ BLACK 2x1,5 mmq for power supply and a twisted and shielded cable specific for BUS EIA-485, such as.
- BELDEN, 9841 (see also <http://www.belden.com/products/industrialcable/eia-485.cfm>)
- CEAM, CPR 6003
- TASKER, C521
- FANTON, ACS 9841

(Note: these models are given as an example of cables that have the appropriate electrical characteristics; the electrical designer will have to verify the compliance of the cable chosen to the specific needs of the plant: type of laying, fire resistance, etc.; BELDEN in particular has a whole family of cables EIA-485, suitable for any type of installation).

The use of this type of cable and compliance with the wiring "enter/ exit" is mandatory in these cases:

- Industrial installations, shopping centres, other installations where strong electromagnetic disturbances can be assumed
- Installations with a very large number of devices or sensors (≥ 15 devices)
- Installations with very long wiring (bus length $> 100\text{m}$)

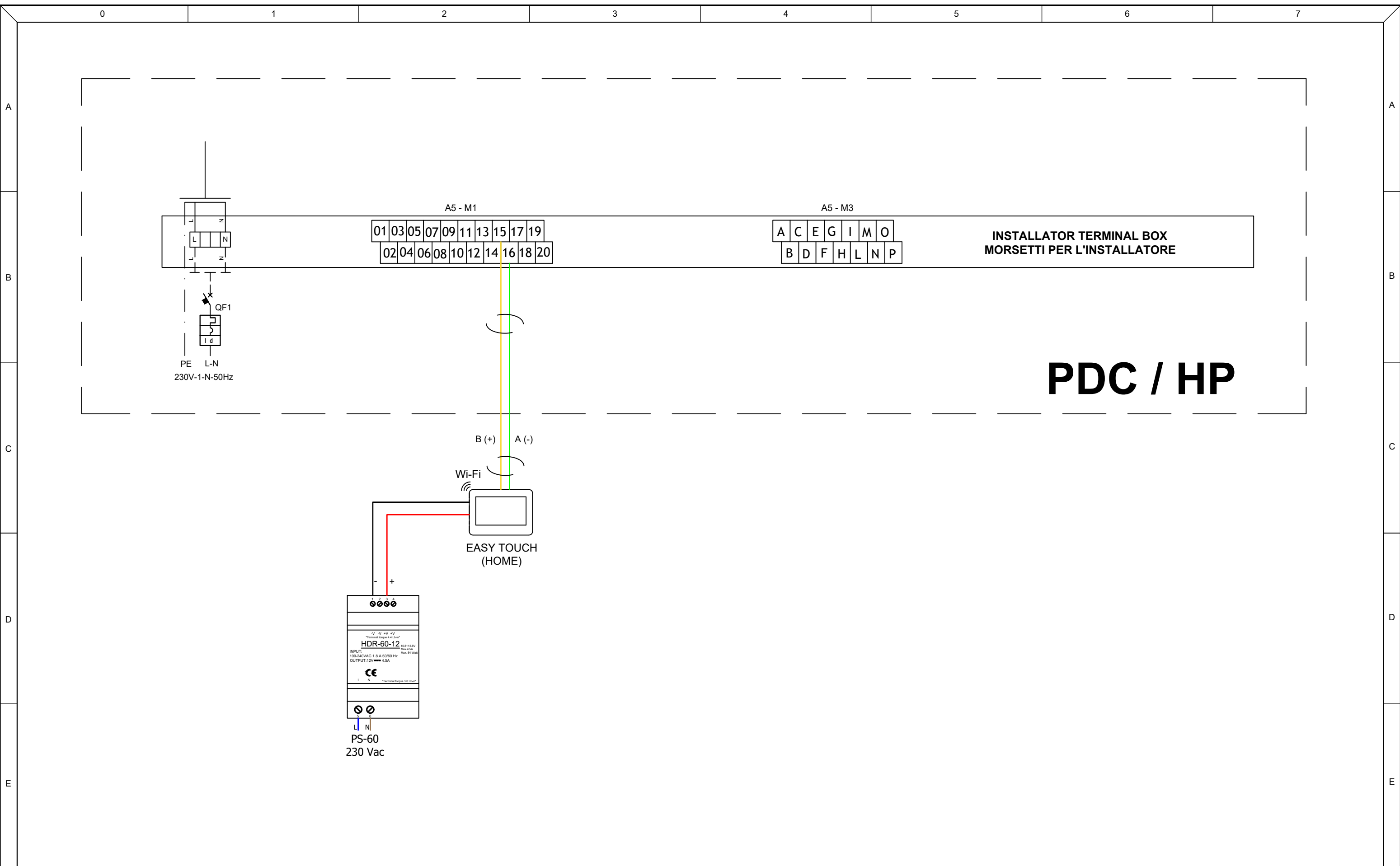
For systems with less prohibitive conditions, which are typically civil installations under the surface of 150 square meters, or when all connected devices are within a single electrical panel and there are devices distributed in the environment, Simpler solutions can be used:

- Cable with two pairs of braided and/ or shielded (having to choose between twisting, or the interweaving of the cables, and shielding, it is preferable the first; obviously the best case is to have both)
- Cable from "alarm systems", 2x0,75 + 2x0,22 + aluminum foil shielding (in this case the two conductors with section 0,75 are used to carry the power, the two with section 0,22 for the bus)



DESCRIZIONE						Electrical Scheme EASY TOUCH						
CODICE						8TEU00019				REV		02
						NOME	DATA	SCALA	FORMATO	FOGLIO		
DISEGNATO						ANDREA C.	29/12/2023	/	A3	1/2		
APPROVATO						ANDREA C.	29/12/2023					

02	18/04/2023	BUS connection correction (A and B), color correction	LP
01	13/10/2022	Added BUS cable indications	LP
N.	DATA	DESCRIZIONE	FIRMA



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