

2.6 Functional diagrams

The MPXPRO controllers are systems that manage refrigeration units (for example, one or a series of multiplexed showcases). These systems are made up of control boards connected together in Master-Slave mode; each Master board can manage up to 5 Slaves. The functional diagrams below show some examples of typical applications:

1. Stand alone configuration and optional cards available

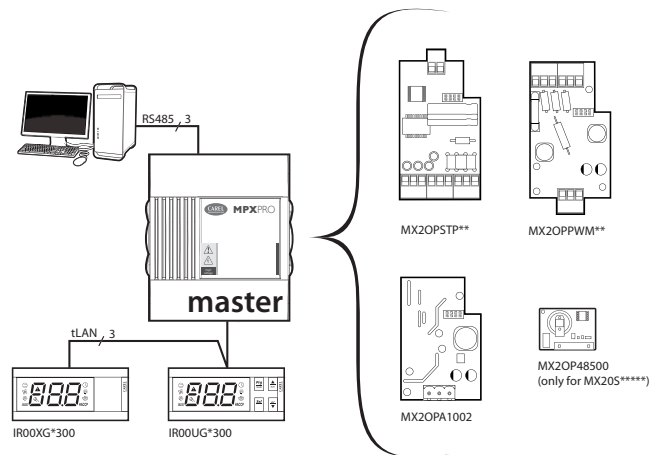


Fig. 2.i

For the electrical connections see the general connection diagram in par. 2.8.

The Master controller can be supplied without the driver board (MX30M00E00), with the driver board for E2V valve (MX30*25E00) or with PWM driver board (MX30*24E00).

Available options:

- 0 to 10 Vdc expansion board (MX*OPA10**). If installed, the drivers cannot be fitted: in this case the driver board with the 0 to 10 Vdc output incorporated;
- on MPXPRO Slave boards (MX30S****) the RTC and RS485 serial interface accessory (MX30P48500) can be added

2. Master/ Slave network with user terminals and remote display

The Master controller, connected to the supervisor network, acts as the gateway and coordinates the functions of the 5 Slave controllers connected in the tLAN. Each controller has its own user terminal and remote display.

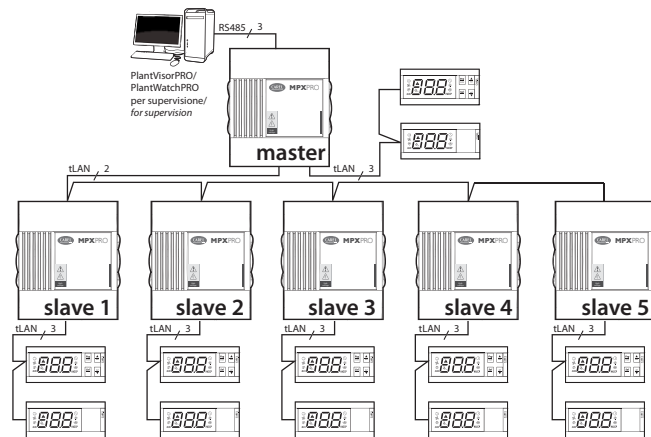


Fig. 2.j

For the electrical connections see the general connection diagram in par. 2.8.

3. Master/Slave network with shared user terminal and local remote display.

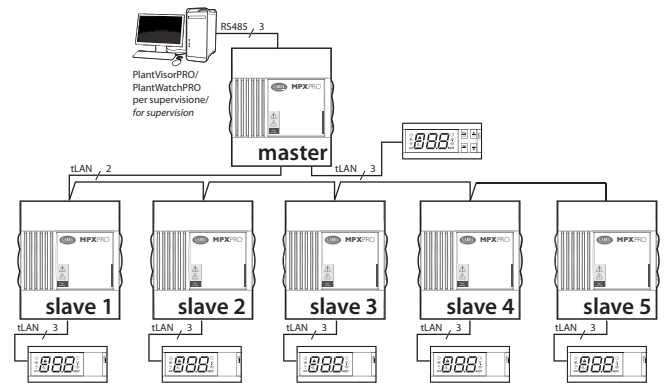


Fig. 2.k

For the electrical connections see the general connection diagram in par. 2.8.

4. RS485 supervisor network

The maximum number of Master controllers that can be connected in the network also depends on the number of Slaves connected to each Master; the maximum total is 199 controllers (CAREL and Modbus® protocol).



Fig. 2.l

For the electrical connections see the general connection diagram in par. 2.8.

2.7 Connecting the MCHRTF**** module

The connection of the MCHRTF**** single-phase speed controller for evaporator fans requires a resistor in series, as shown in the following figure:

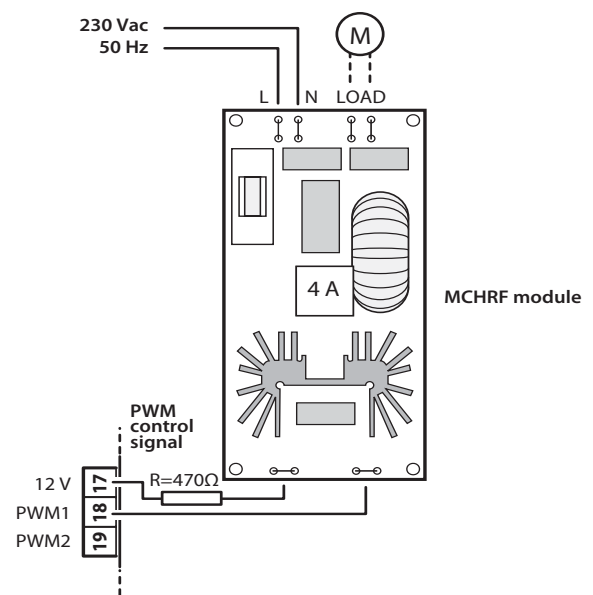


Fig. 2.m