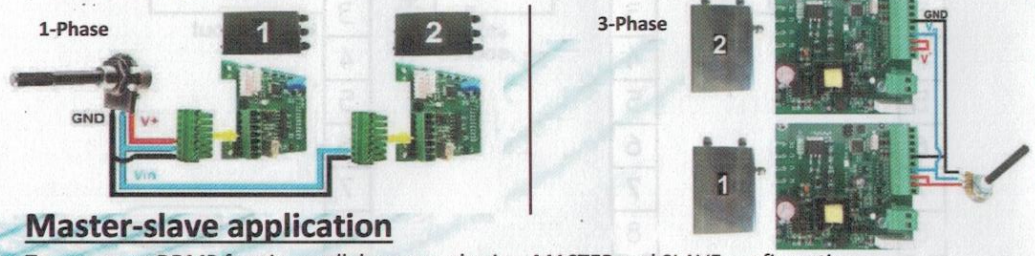
Analogue speed control parallel connection

If two or more fans are installed in the same compartment it is important that they start at the same time, otherwise the first fan starting forces the other to run in backward rotation. The fans are able to start with a low backward rotation (speed < 200 rpm), but they stop if the backward rotation is higher due to a built-in auto-protection feature. With the parallel connection of the analogue input, this problem can be prevented.



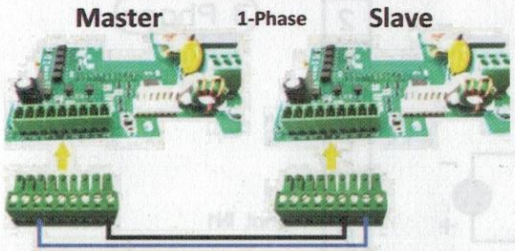
Master-slave application

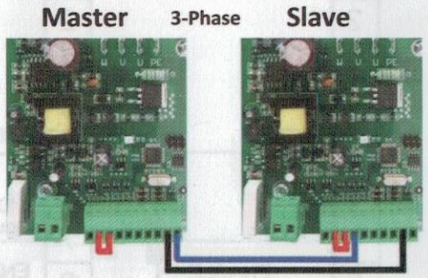
Two or more DDMP fans in parallel can run also in a MASTER and SLAVE configuration.

In this configuration the slaves run at the same speed of the master.

1. configure the Master DDMP fan in the preferred operating mode;
2. configure the Slave DDMP fan in Master&Slave mode → Holding Register 34: Input Type=3);
3. the Master DDMP must have the Holding Register 46 set at 0 = TACHO.

Refer to the DDMP manual for more details.





Accessories

CONFIGURATION SOFTWARE !

Our freeware software is available from the Company website (product download area) for performance monitoring of all Nicotra-Gebhardt electronic fans. The table on the left lists the possible operating modes. (Holding Register 34: Input Type)

Holding Register 34: Input Type [Adim] **(Deafult = 1 → Analog Speed Control)**

This register defines all the possible operating modes:

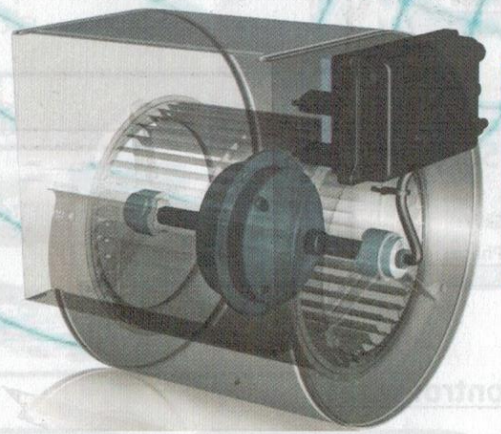
0-	*Modbus Speed Control:*	The speed is set by modifying the register 66 (volatile)
1-	*Analog Speed Control:*	The speed is set through the analog signal
2-	*Modbus Fixed Speed Control:*	The speed is set by modifying the register (permanent)
3-	*Master & Slave:*	The fan is configured as slave and follows the speed of the master.
4-	*Analog Constant Airflow:*	The constant airflow is set through the analog signal
5-	*Modbus Constant Airflow:*	The constant airflow is set by modifying the register 66 (volatile)
6-	*Modbus Fixed Constant Airflow:*	The constant airflow is set by modifying the reg. 39 (permanent)
7-	*Analog Asynchronous Emulation:*	The emulation is set through the analog signal
8-	*Modbus Asynchronous Emulation:*	The emulation is set by modifying the register 66 (volatile)
9-	*Modbus Fixed Asynchronous Emulation:*	The emulation is set by modifying the register 30 (permanent)
10-	*Analog Ref. PID Closed Control Loop:*	NOT AVAILABLE ON DDMP (Second Analog input not present)
11-	*Modbus Ref. PID Closed Control Loop:*	The PID ref. is set by modifying the register 66 (volatile)
12-	*Modbus Fixed Ref. PID Closed Control Loop:*	The PID ref. is set by modifying the register 50 (permanent)

Range: $0 \leq InputType \leq 12$

NICOTRA Gebhardt

DDMP

Quick Installation Guide



beyond ErP 2020

Complete documentation
Documentazione completa
Komplette Dokumentation
Documentation complète
Documentación completa

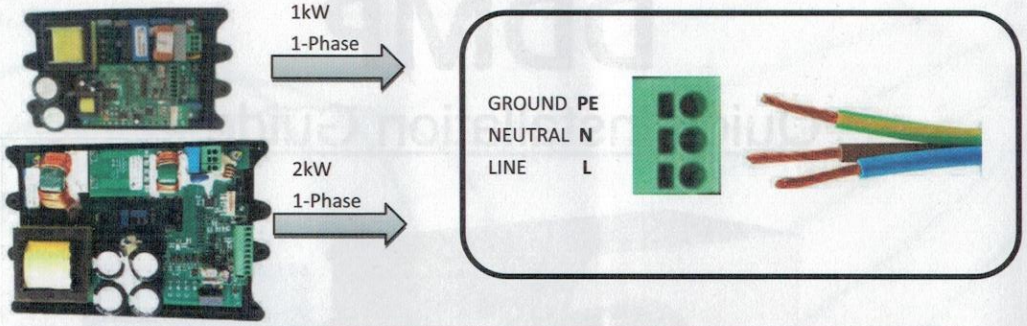
http://www.nicotra-gebhardt.com

DOWNLOAD

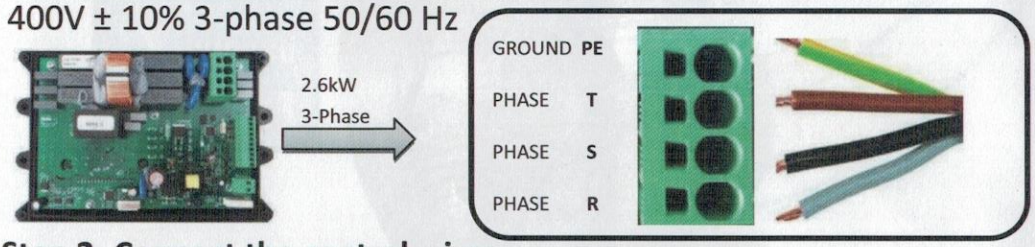
985739 Rev.04 06/2019

Step 1 - Plug the power supply inside the main board box

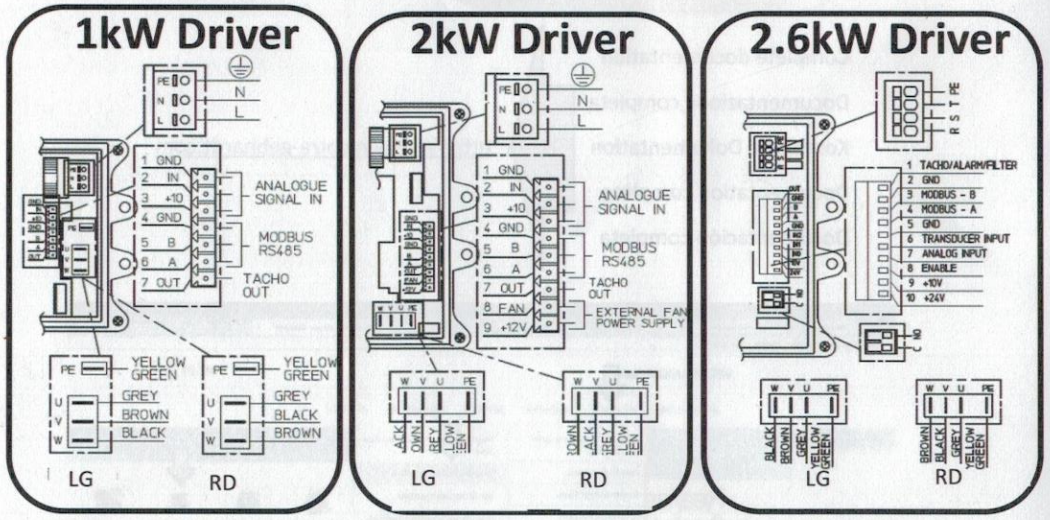
220/240V ± 10% 1-phase 50/60 Hz



400V ± 10% 3-phase 50/60 Hz



Step 2- Connect the control wires

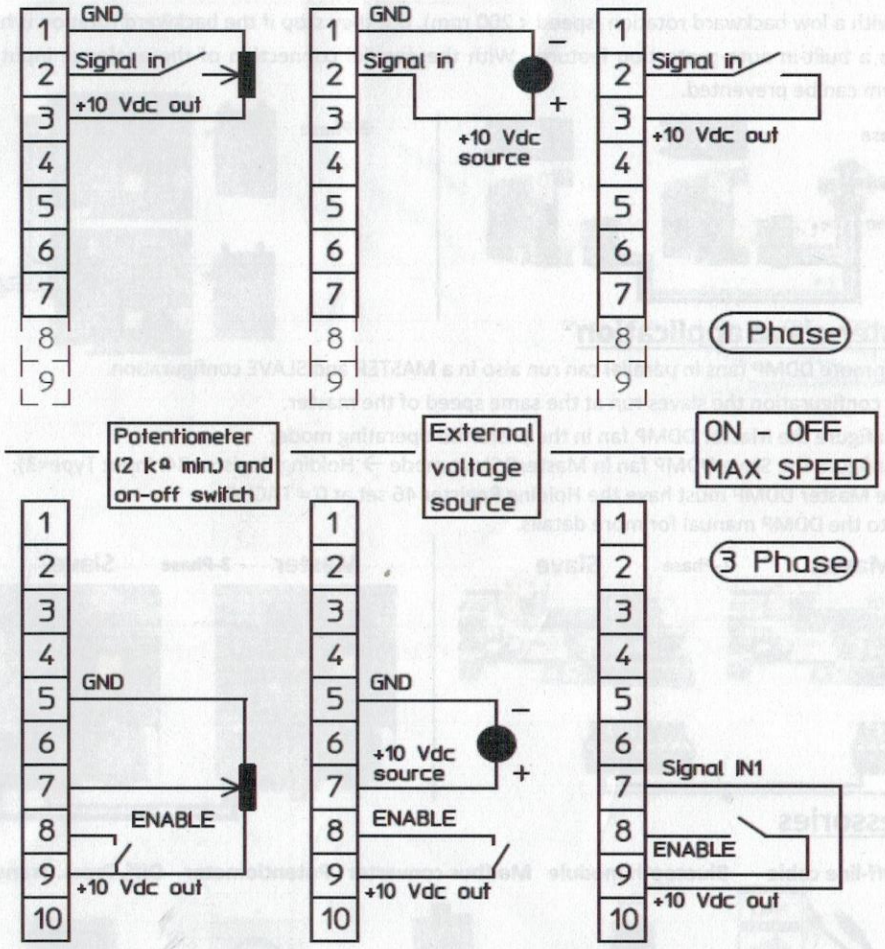


Warning: do not disconnect power supply to switch off the fan: disconnect the "Signal IN" from +10V out instead. Disconnecting and re-connecting repeatedly the power supply may damage the driver unit

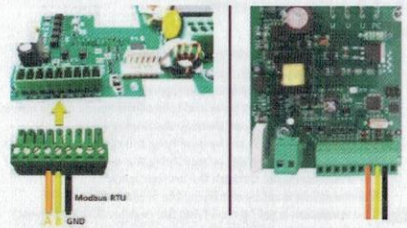
1 kW 1-Phase, 2 kW 1-Phase and 2.6kW 3-Phase drivers have different socket configurations

Default driver configuration is Analog Speed Control

Examples of analogue control connections



Modbus Connection



Tachometric Connection