

# **CONTROL PANELS AND SYSTEMS**

CONTROL PANELS FOR 3 THREE PHASE MOTOR PUMPSDIRECT STARTING WITHTHERMAL PROTECTIONFOR WASTEWATER/SEWAGE





Three phase control for three motor pumps.

# **TECHNICAL DATA**

- Power supply  $3 \sim 50/60$ Hz 400V  $\pm 10\%$ ;
- Main disconnecting switch with door lock;
- •Transformer for power supply of auxiliary circuits;
- Contactor for each motor;
- Exchanger;
- Protection degree IP 55

# **DESIGN**

Any configurations / specifications including D+S, 2 D +S, D+S+J +A/S, control panels with soft starters, variable speed drives, PLC etc., can be designed and supplied on request.

# **INPUTS**

- No.8 low voltage inputs for:
  - Emergency stop (e.g foat switches for protection from dry operation), active in both AUTOMATIC and MANUAL modes;
  - Functional start and (e.g.: control Float switches) for each motor.
- Selector MANUAL-AUTOMATIC-OFF for each

#### **PUMP**

- No. 7 indicator lights for the signaling of:
  - Presence of power supply;
  - Motor pump 1 -3 running;
  - Motor protection tripping 1 3

#### PROTECTION AND ALARMS

- Motor protection fuses for each motor;
- Protection fuses on the auxiliary circuits.
- Alarm output 24Vac active in case of overload protection tripping or maximum level reached.
- Engine block due to temperature sensor tripping

# **OPERATING CONDITIONS:**

- Ambient temperature -5 / +40 ° C;
- Relative humidity 50% with maximum temperature 40°C

#### **NOTES**

- The power value is indicative in order for you to choose the correct control panel, make sure that the motor ampere absorption is included between the two operating current values of the control panel.
- Housing made of metal (M) for all sizes.



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# **CONTROL PANELS AND SYSTEMS**



# CONTROL PANELS FOR TWO SINGLE PHASE MOTOR PUMPS 230V WITH THERMAL PROTECTION FOR WASTEWATER/SEWAGE

Single phase electromechanical control panel for two motor pumps

# **TECHNICAL DATA**

- Power supply  $3 \sim 50/60$ Hz  $230V \pm 10\%$ ;
- Main disconnecting switch with door lock;
- •Transformer for power supply of auxiliary circuits;
- Contactor for each motor;
- Exchanger;
- Protection degree IP 55

# **DESIGN**

Any configurations / specifications including D+S, 2 D +S, D+S+J +A/S, control panels with soft starters, PLC etc., can be designed and supplied on request.

#### **INPUTS**

- No.6 extra low voltage inputs for:
  - Emergency stop (e.g., Float switches for protection from dry operation), active in both AUTOMATIC and MANUAL modes;
  - functional start and stop SL / SP 1 (e.g.:control Float switches);
  - maximum level alarm SL / SP MAX;

# **CONTROLS AND SIGNALS**

- Selector MANUAL-AUTOMATIC-OFF for each pump
- No. 5 indicator lights for the signaling of:
  - Presence of power supply;
  - Motor pump 1 or 2 running;
  - Motor protection tripping 1 or 2

# PROTECTION AND ALARMS

- •Thermal relay sensitive to the lack of phase internally resettable for each motor;
- Motor protection fuses for each motor;
- Protection fuses on the auxiliary circuits.

# **OPERATING CONDITIONS:**

- Ambient temperature -5 / +40 ° C;
- Relative humidity 50% with maximum temperature 40°C.

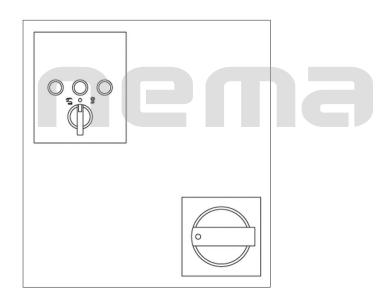
#### NOTES

- The power value is indicative in order for you tochoose the correct control panel, make sure thathe motor ampere absorption is included betweenthe two operating current values of the controlpanel.
- Casing made METAL



# NOVAX CONTROL PANELS AND SYSTEMS (PUMPS)





Every control panel is set-up to control an electric pump.

- The start consent is given by the minimum pressure in the system and by the minimum water level in the suction tank. Any intervention of the level indicator due to lack of water, stops the electric pump.
- Motor overloading is controlled by the circuit breaker relay and indicated on the control panel.

#### **TECHNICAL DATA**

- Power supply: 400V ±10- 50/60 Hz
- •Temperature limits: -10°C ÷ + 40°C
- IP55 Protection rating



# **DESIGN**

Any configurations / specifications including D+S, 2D + S, D+S+J + A/S, control panels with soft starters, variable speed drives, PLC etc., can be designed and supplied on request.

NOTES: The rating of the components are decided with the selection of the pump