

eDemand Controllers

Electronic voltage controller



Features and Benefits

- Demand ventilation control for A/C speed controllable Fans
- Quick start-up by pre-programmed modes
- IP54 Rated
- Total motor protection using thermistor connection
- LCD multi function display
- Menu language – English, German, French, Italian
- 2 x analogue input for sensors (0-10V – separate power supply required, 0-20mA)
 - CO₂ Control
 - Temperature Control
 - Constant Pressure Control
 - Manual remote speed adjuster (0-20 mA)
- Min/Max speed limitation - Volume range set point adjustment
- 2 x Programmable relay output - Fault Condition, master slave
- Programmable 2x Digital inputs – On/Off, external fault, Manual speed control
- RS485 Modbus Interface
- Master/Slave capability via 0-10V output

Equipment/Function

- Mains switch with by-pass function
- Pin protection, to save user settings
- Quick start up by pre-programmed modes
- Max environmental conditions 40 Deg C, 85% Humidity no condensation
- Readout events memory (checking Fault log)

Technical

Line voltage 1~ 230V (-15% / + 10%)
50/60 Hz

Line Voltage 3~208V - 415V (-10%/+6%),
50/60 Hz

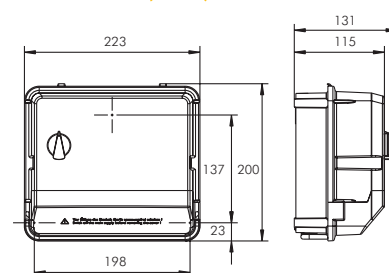
Part No	444164	444165	444166	444167	444168
Voltage	1 Phase	1 Phase	3 Phase	3 Phase	3 Phase
Rated current / A	6	10	5	10	15
Max. line fuse / A	10	16	10	16	20
Max. heat dissip. /W	20	40	25	50	70
Weight / kg	1.4	2.4	2.4	2.8	4.8

Interference emissions EN 61000-6-3
(unshielded motor cable)

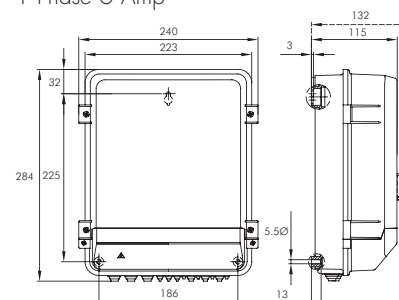
Interference immunity EN 61000-6-2

For suitability check relevant fan accessory section

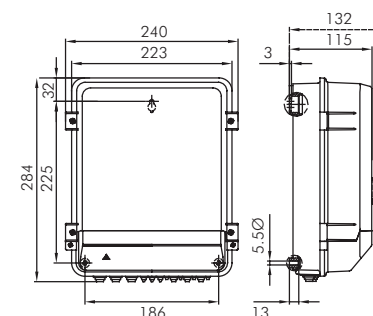
Dimensions (mm)



1 Phase 6 Amp



1 Phase 10 Amp



3 Phase 5/10 /15 Amp

eDemand Controllers

Frequency Inverter 1~ to 3~



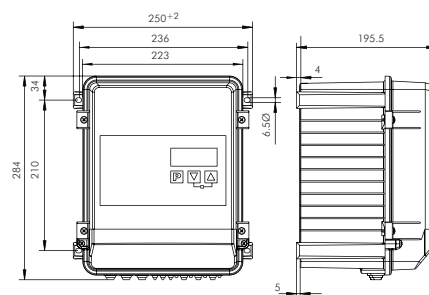
Features and Benefits

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- Programmable 2x Digital inputs – On/Off, external fault, Manual speed control
- RS485 Modbus Interface
- Master/Slave capability via 0-10V output

Equipment/Function

- Pin protection, to save user settings
- Quick start up by pre-programmed modes
- Integrated SINEFILTER
- Max environmental conditions 40 Deg C, 85% Humidity no condensation
- Readout events memory (checking Fault log)
- Speed control of fans without additional (electromagnetic) motor noise
- Parallel operation of fans, no risk of motor damage (screened motor cables are not required)
- Active power factor adjustment for sinusoidal input current
- Integrated process controller (PID free programmable)

Dimensions (mm)



1 Phase 5 Amp

Technical

Line voltage 1~ 208 ... 277 V (-10 % / +10 %), 50/60 Hz

Output voltage 3~230V (max. 250V) for 3~ motors in Δ connection

Part No	444177
Voltage	1 Phase
Rated current / A	5
Max. line fuse / A	10
Max. heat dissip. /W	205
Weight / kg	6.6

Max output Frequency 100 Hz
Clock frequency 16 Hz
Interference emissions EN 61000-6-3
(unshielded motor cable)
Interference immunity EN 61000-6-2

For suitability check relevant fan accessory section

eDemand Controllers

Frequency Inverter 3~



Features and Benefits

- Demand ventilation control for A/C speed controllable Fans
- Quick start-up by pre-programmed modes
- IP54 Rated
- Total motor protection using thermistor connection
- LCD multi function display
- Menu language – English, German, French, Italian
- 2 x analogue input for sensors (0-10V – separate power supply required, 0-20mA)
 - CO₂ Control
 - Temperature Control
 - Constant Pressure Control
 - Manual remote speed adjuster (0-20 mA)
- Min/Max speed limitation - Volume range set point adjustment
- 2 x Programmable relay output - Fault Condition, master slave
- Programmable 2x Digital inputs – On/Off, external fault, Manual speed control
- RS485 Modbus Interface
- Master/Slave capability via 0-10V output

Equipment/Function

- Pin protection, to save user settings
- Quick start up by pre-programmed modes
- Integrated SINEFILTER
- Max environmental conditions 40 Deg C, 85% Humidity no condensation
- Readout events memory (checking Fault log)
- Speed control of fans without additional (electromagnetic) motor noise
- Integrated SINEFILTER between phase to phase & phase to ground
- Parallel operation of fans, no risk of motor damage (screened motor cables are not required)
- Active power factor adjustment for sinusoidal input current
- Integrated process controller (PID free programmable)

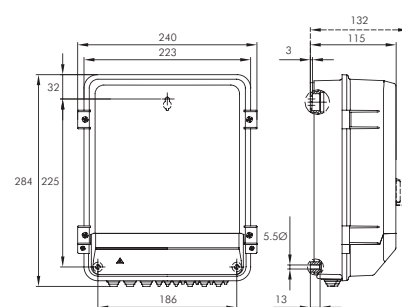
Technical

Line voltage 3 ~ 208...480 V (-15 % / +10 %), 50/60 Hz

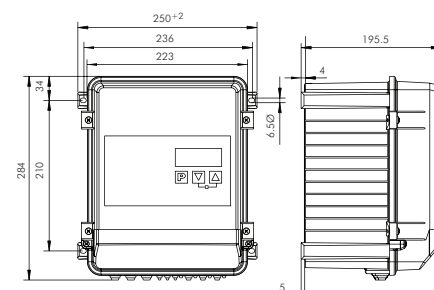
Part No	444172	444173	444174	444175	444176
Rated current / A	2.5	5	8	14	18
Max. line fuse / A	6	10	10	16	20
Max. heat dissip. /W	50	100	150	310	400
Weight / kg	3.3	7.2	7.9	8.7	9.1

Max output Frequency 100 Hz
 Clock frequency 16 Hz
 Interference emissions EN 61000-6-3 (unshielded motor cable)
 Interference immunity EN 61000-6-2
 For suitability check relevant fan accessory section

Dimensions (mm)



2.5 Amps



5/8/14/18 Amps

eDemand Controllers Frequency Inverter 1~



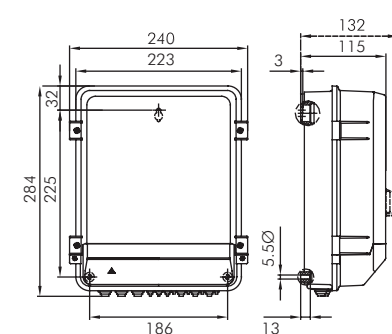
Features and Benefits

- Demand ventilation control for A/C speed controllable Fans
- Quick start-up by pre-programmed modes
- IP54 Rated
- Total motor protection using thermistor connection
- LCD multi function display
- Menu language – English, German, French, Italian
- 2 x analogue input for sensors (0-10V – separate power supply required, 0-20mA)
 - CO₂ Control
 - Temperature Control
 - Constant Pressure Control
 - Manual remote speed adjuster (0-20 mA)
- Min/Max speed limitation - Volume range set point adjustment
- 2 x Programmable relay output - Fault Condition, master slave
- Programmable 2x Digital inputs – On/Off, external fault, Manual speed control
- RS485 Modbus Interface
- Master/Slave capability via 0-10V output

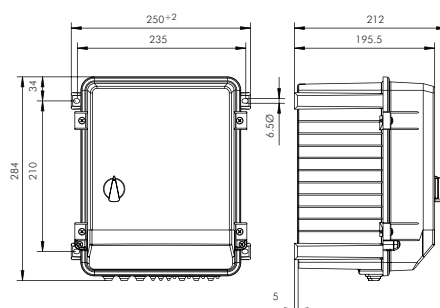
Equipment/Function

- Pin protection, to save user settings
- Quick start up by pre-programmed modes
- Integrated SINEFILTER
- Max environmental conditions 35 Deg C, 85% Humidity no condensation
- Readout events memory (checking Fault log)
- Speed control of fans without additional (electromagnetic) motor noise
- Parallel operation of fans, no risk of motor damage (screened motor cables are not required)
- Active power factor adjustment for sinusoidal input current
- Integrated process controller (PID free programmable)

Dimensions (mm)



4 Amps



6/10 Amps

Technical

Line voltage 1~ 208 ... 277 V (-10 % / +10 %), 50/60 Hz

Part No	444169	444170	444171
Voltage	1 Phase	1 Phase	1 Phase
Rated current / A	4	6	10
Input rated Current/ A	3.85	5.85	-
Max. line fuse / A	6	10	16
Max. heat dissip. /W	57	102	130
Weight / kg	3.4	5.7	6.8

Max output Frequency 100 Hz
Clock frequency 16 Hz
Interference emissions EN 61000-6-3 (unshielded motor cable)
Interference immunity EN 61000-6-2
For suitability check relevant fan accessory section

eDemand Auto Changeover Panels

Features and Benefits

- IP54 Enclosure
- eDemand compatible
- Single & Three Phase models
- Adjustable Duty/Share Timer
- Automatic Changeover (Fan Fail)
- Fan Failure Alarm contacts

Offering Demand Ventilation control for the wide range of standard AC speed controllable Twin fans, these new changeover panels have been designed to compliment the new range of eDemand Controllers and are fully compatible.

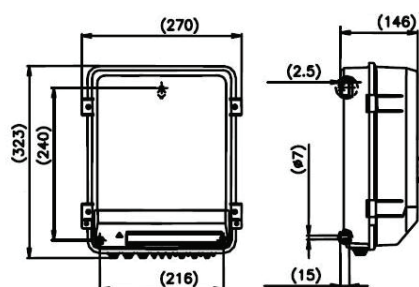
Speed control input is suitable for use with the following eDemand Controller ranges

- Single & Three Phase electronic speed controllers.
- Single & Three Phase inverters.
- Single to Three Phase inverter.

Models

Three Phase 10 Amp
Single Phase 10 Amp
Single Phase 20 Amp

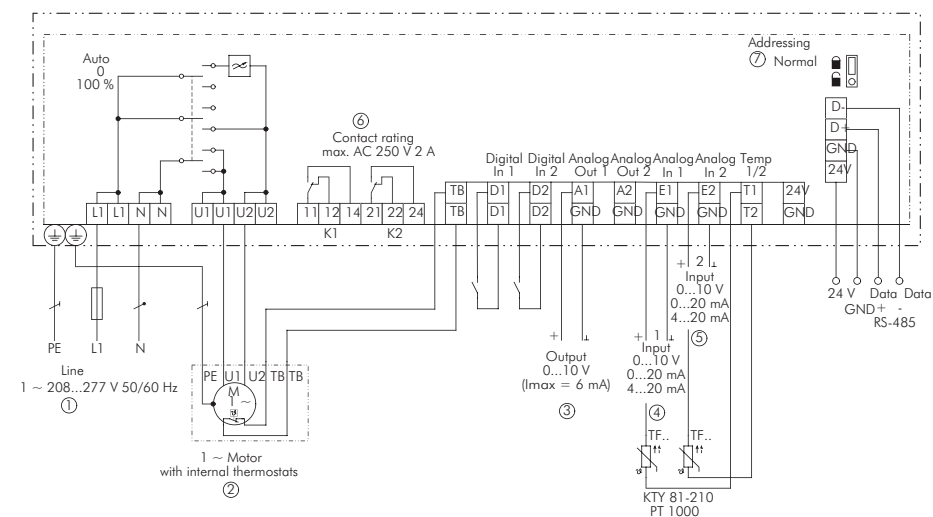
Dimensions (mm)



Stock Ref
444179
444180
444181

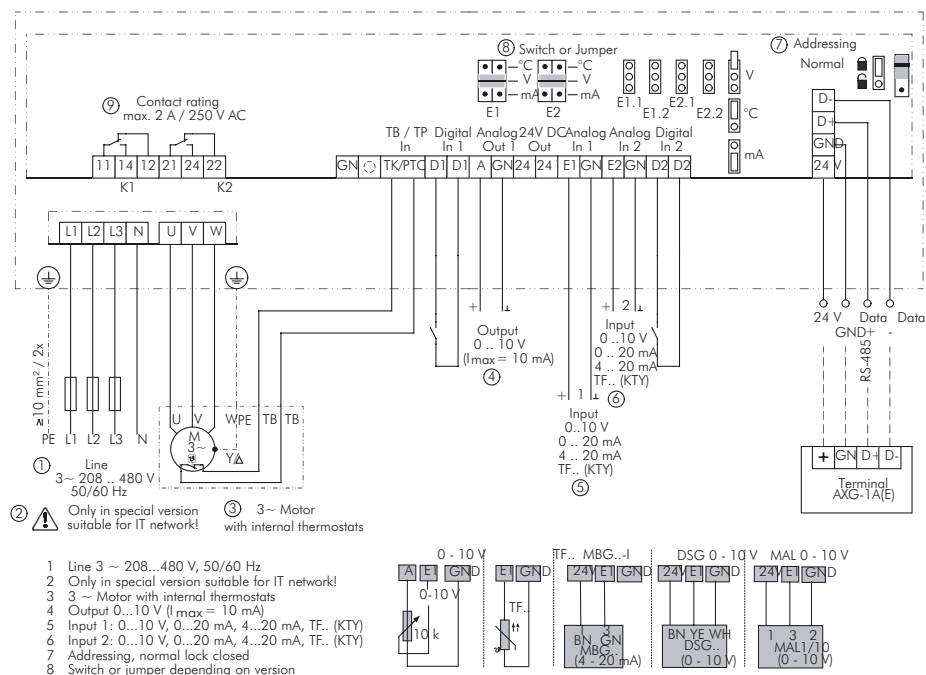
Connection Diagrams

Single Phase Inverters for 444169, 444170 & 444171



- 1 Line 1 ~ 208...277 V 50/60 Hz
- 2 1 ~ Motor with internal thermostats
- 3 Output 0...10 V ($I_{max} = 6$ mA)
- 4 Input 1: 0...10 V, 0...20 mA, 4...20 mA, TF.. (KTY81-210), PT1000
- 5 Input 2: 0...10 V, 0...20 mA, 4...20 mA, TF.. (KTY81-210), PT1000
- 6 Contact rating max. 2A / 250 V AC
- 7 Addressing, normal lock closed

Three Phase Inverters for 444172, 444173, 444174, 444175 & 444176

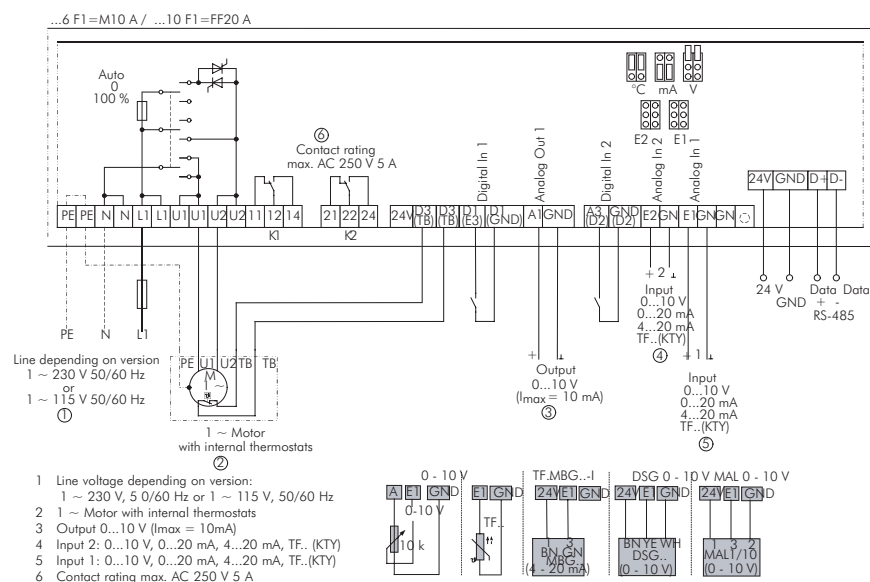


- 1 Line 3 ~ 208...480 V 50/60 Hz
- 2 Only in special version suitable for IT network!
- 3 3 ~ Motor with internal thermostats
- 4 Output 0...10 V ($I_{max} = 10$ mA)
- 5 Input 1: 0...10 V, 0...20 mA, 4...20 mA, TF.. (KTY)
- 6 Input 2: 0...10 V, 0...20 mA, 4...20 mA, TF.. (KTY)
- 7 Addressing, normal lock closed
- 8 Switch or jumper depending on version



Connection Diagrams

Single Phase Electronic for 444164 & 444165



Three Phase Electronic for 444166, 444167 & 444168

