# AET ELECTROMECHANICAL STAR-DELTA STARTER BOX

**E02-AET-FT-001**

Product data sheet · Soft-start and variable-speed starter panels

Electromechanical star-delta starter box for 1, 2 or 3 three-phase 400 V motors (AET1, AET2, AET3), from 5.5 to 150 kW depending on the version, in an IP55 metal enclosure. Three contactors, adjustable star-delta timer, voltmeter and ammeter on the front panel.



## Technical data

| | |
|---|---|
| **Operating voltage** | 400 Vac ± 10%, 50/60 Hz |
| **Number of motors** | 1 (AET1, 5.5 to 150 kW), 2 (AET2, 5.5 to 92 kW) or 3 (AET3, 5.5 to 45 kW) |
| **Isolator** | Main isolator with door interlock |
| **Control** | Auto-off-manual selector switch; start/stop button for manual operation |
| **Indicators** | LED run indicator light, LED overload indicator light |
| **Metering** | 72 × 72 mm analogue voltmeter with voltmeter selector switch, 72 × 72 mm analogue ammeter |
| **Starting** | Star-delta, 3 contactors, adjustable star-delta timer |
| **Switchgear** | Transformer and auxiliary circuit protection fuse, motor protection fuses, thermal overload relay with internal reset, connection terminal block |
| **Inputs** | 2 extra-low voltage inputs for a pressure switch or floats (minimum level and maximum level) |
| **Protection** | Overcurrent, with alarm |
| **Enclosure** | Metal |
| **Protection rating** | IP55 |
| **Operating temperature** | -5 to +40 °C |
| **Level probe option** | OP-SONDES, 24/230 Vac probe management kit |

## Description

The AET box provides star-delta starting for a 400 V three-phase motor, by means of three contactors. The star-delta changeover time is set on the timer. The motor is protected by fuses and a thermal overload relay.

The front panel carries a voltmeter with voltmeter selector switch, an ammeter, the run and overload indicator lights, the mode selector switch and the start/stop button.

The selector switch sets the operating mode:

- automatic: operation controlled by a pressure switch or floats connected to the extra-low voltage inputs;

- 0: off;
- manual: start and stop with the start/stop button.

The box is available for 1, 2 or 3 motors: AET1 (5.5 to 150 kW), AET2 (5.5 to 92 kW) and AET3 (5.5 to 45 kW). Apart from the number of motors and the OP-SONDES option, the specifications above are those of the 1-motor box. For the 2- and 3-motor boxes, the current range in the table is per motor.

## Performance

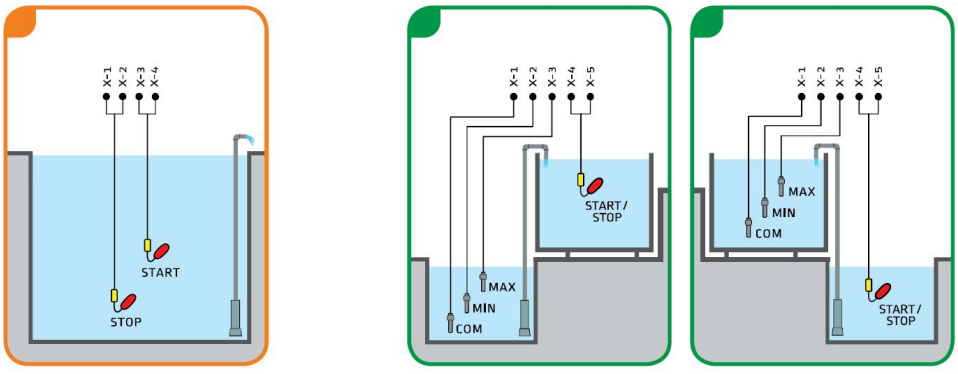
### Models, power ratings and current ranges (per motor)

| Code | Min. motor power (kW) | Max. motor power (kW) | Min. current (A) | Max. current (A) |
|---|---|---|---|---|
| **AET1 – 1 motor** | | | | |
| AET1-005 | | 5.5 | 7 | 10 |
| AET1-007 | | 7.5 | 9 | 12.5 |
| AET1-009 | | 9.2 | 9 | 12.5 |
| AET1-011 | | 11 | 11 | 16 |
| AET1-013 | | 13 | 11 | 16 |
| AET1-015 | | 15 | 14 | 20 |
| AET1-018 | | 18.5 | 20 | 25 |
| AET1-022 | 22 | 26 | 27 | 32 |
| AET1-030 | | 30 | 34 | 40 |
| AET1-037 | | 37 | 40 | 50 |
| AET1-045 | | 45 | 47 | 57 |
| AET1-051 | 51.5 | 55 | 54 | 65 |
| AET1-060 | | 60 | 62 | 73 |
| AET1-066 | | 66 | 70 | 80 |
| AET1-075 | | 75 | 70 | 90 |
| AET1-092 | | 92 | | |
| AET1-110 | | 110 | | |
| AET1-132 | | 132 | | |
| AET1-150 | | 150 | | |
| **AET2 – 2 motors** | | | | |
| AET2-005 | | 5.5 | 7 | 10 |
| AET2-007 | | 7.5 | 9 | 12.5 |
| AET2-009 | | 9.2 | 9 | 12.5 |
| AET2-011 | | 11 | 11 | 16 |
| AET2-013 | | 13 | 11 | 16 |
| AET2-015 | | 15 | 14 | 20 |
| AET2-018 | | 18.5 | 20 | 25 |
| AET2-022 | 22 | 26 | 27 | 32 |
| AET2-030 | | 30 | 34 | 40 |

# AET ELECTROMECHANICAL STAR-DELTA STARTER BOX

| Code | Min. motor power (kW) | Max. motor power (kW) | Min. current (A) | Max. current (A) |
|---|---|---|---|---|
| AET2-037 | | 37 | 40 | 50 |
| AET2-045 | | 45 | 47 | 57 |
| AET2-051 | 51.5 | 55 | 54 | 65 |
| AET2-060 | | 60 | 62 | 73 |
| AET2-066 | | 66 | 70 | 80 |
| AET2-075 | | 75 | 70 | 90 |
| AET2-092 | | 92 | | |
| **AET3 – 3 motors** | | | | |
| AET3-005 | | 5.5 | 7 | 10 |
| AET3-007 | | 7.5 | 9 | 12.5 |
| AET3-009 | | 9.2 | 9 | 12.5 |
| AET3-011 | | 11 | 11 | 16 |
| AET3-013 | | 13 | 11 | 16 |
| AET3-015 | | 15 | 14 | 20 |
| AET3-018 | | 18.5 | 20 | 25 |
| AET3-022 | 22 | 26 | 27 | 32 |
| AET3-030 | | 30 | 34 | 40 |
| AET3-037 | | 37 | 40 | 50 |
| AET3-045 | | 45 | 47 | 57 |

## Installation




Connection examples: standard box (1) and boxes with options (2, 3)

1. General use, standard box: STOP float on terminals X-1 and X-2, START float on terminals X-3 and X-4.
2. Clean water, emptying, box with options: COM, MIN and MAX level probes on terminals X-1, X-2 and X-3, START/STOP float on terminals X-4 and X-5.
3. Clean water, filling, box with options: same terminals; the START/STOP float and the level probes are placed the opposite way round to diagram 2.

In the diagrams, the float is shown in yellow and red, the level probes in grey.

The level probes in diagrams 2 and 3 are connected using the OP-SONDES option, a 24/230 Vac probe management kit.

**Related documents :** E02-ADP-FT-001, E01-CEV-FT-001

**Product codes :** AET1-005, AET1-007, AET1-009, AET1-011, AET1-013, AET1-015, AET1-018, AET1-022, AET1-030, AET1-037, AET1-045, AET1-051, AET1-060, AET1-066, AET1-075, AET1-092, AET1-110, AET1-132, AET1-150, AET2-005, AET2-007, AET2-009, AET2-011, AET2-013, AET2-015, AET2-018, AET2-022, AET2-030, AET2-037, AET2-045, AET2-051, AET2-060, AET2-066, AET2-075, AET2-092, AET3-005, AET3-007, AET3-009, AET3-011, AET3-013, AET3-015, AET3-018, AET3-022, AET3-030, AET3-037, AET3-045