

# Biffi F01 3000

Intelligent, Quarter-Turn Electric Valve Actuator



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## Terminology

### Nominal Torque

- Seating torque output of the actuator at full load.
- Output Torque with torque switch setting of 100%.

### Minimum Torque

- Minimum output torque switch setting up to 40% of Nominal Torque.
- Adjustable in OPEN and in CLOSED direction.

### Stall Torque

- Maximum torque/thrust during the initial start of output when the motor is energized and the output drive is locked.
- Stall Torque will be up to 2 times the Nominal Torque depending on speed and voltage.

### Torque By-Pass

- Torque intervention bypass time function allows the actuator to output its stall torque at the beginning of the stroke.
- This allows a stall torque to be developed in order to operate sticking valves.
- By-Pass period time configurable from 0 to 20% or 100 to 80% of the stroke.

### Modulating Torque

- Maximum torque for modulating duty.
- For 100% nominal voltage, +40 °C ambient temperature and at modulating torque load.

### Jammed valve

- Time on which the actuator can supply the Stall Torque during the Torque By-Pass period.

## Electric Technical Data

### Motor Voltage Operation

- Voltage at which the actuator must be able to supply its nominal torque and within the power supply.
- Tolerances  $\pm 10\%$   
Applies on Nominal torque performance only; duty cycle, speed and current draw is not guaranteed.

### Motor Frequency Operation

- Frequency at which the actuator must be able to supply its nominal torque and within the frequency.
- Tolerances  $\pm 5\%$   
Applies on Nominal torque performance only; duty cycle, speed and current draw is not guaranteed.

### Motor Output Power (kW/hp)

- Mechanical power output at run torque of actuator.
- (Approximately 40% of actuator rated torque). According to IEC 60034-1.

### Nominal current (In)

- Current at run torque at approximately 40% of nominal torque (minimum torque).

### Rated current (Is)

- Motor current at approximately 100% of actuator nominal torque.

### Locked current (Icc)

- Current at maximum torque (locked rotor current).

### Power Factor (Cos $\phi$ nom)

- Power factor at approximately 40% of actuator nominal torque.

### Absorbed Power (kW/hp)

- Absorbed electrical power at approximately 40% of actuator nominal torque.

### Efficiency (%)

- Referred to the electrical power absorbed by the actuator.

## Electric Data

### Three-Phase AC

**Table 1. Short-Time Duty (S2-15') | Inching Duty (S4-25% | 60 St/h)**  
**3-PH 380 V (50 Hz)**

Size, Torque and Speed	Motor Type	Power (kW / hp)	In (A)	Is (A)	Icc (A)	Power Factor	Absorbed Power (kW / hp)	Efficiency (%)
F01-150-052/6-5	M052	0.05 / 0.07	0.4	0.25	1	0.47	0.08 / 0.11	57.1
F01-150-054/12-10	M054	0.02 / 0.03	0.2	0.16	0.4	0.42	0.04 / 0.05	50
F01-150-052/15-12	M052	0.05 / 0.07	0.4	0.25	1	0.47	0.08 / 0.11	57.1
F01-150-054/30-25	M054	0.02 / 0.03	0.2	0.16	0.4	0.42	0.04 / 0.05	50
F01-150-056/45-37	M056	0.02 / 0.03	0.2	0.14	0.4	0.38	0.04 / 0.05	46.7
F01-150-058/60-50	M058	0.02 / 0.03	0.2	0.12	0.5	0.36	0.03 / 0.04	50
F01-300-102/6-5	M102	0.09 / 0.12	0.5	0.4	1.5	0.56	0.15 / 0.2	57.1
F01-300-104/12-10	M104	0.04 / 0.05	0.4	0.3	1	0.42	0.08 / 0.11	50
F01-300-052/15-12	M052	0.05 / 0.07	0.4	0.25	1	0.47	0.08 / 0.11	57.1
F01-300-054/30-25	M054	0.02 / 0.03	0.2	0.16	0.4	0.42	0.04 / 0.05	50
F01-300-056/45-37	M056	0.02 / 0.03	0.2	0.14	0.4	0.38	0.04 / 0.05	46.7
F01-300-058/60-50	M058	0.02 / 0.03	0.2	0.12	0.5	0.36	0.03 / 0.04	50
F01-600-102/15-12	M102	0.09 / 0.12	0.5	0.4	1.5	0.56	0.15 / 0.2	57.1
F01-600-104/30-25	M104	0.04 / 0.05	0.4	0.3	1	0.42	0.08 / 0.11	50
F01-600-106/45-37	M106	0.04 / 0.05	0.4	0.25	0.8	0.4	0.07 / 0.09	50
F01-600-108/60-50	M108	0.02 / 0.03	0.3	0.2	0.6	0.38	0.05 / 0.07	40

**Table 2. 3-PH 380 V (60 Hz)**

Size, Torque and Speed	Motor Type	Power (kW / hp)	In (A)	Is (A)	Icc (A)	Power Factor	Absorbed Power (kW / hp)	Efficiency (%)
F01-150-052/6-5	M052	0.05 / 0.07	0.4	0.25	1	0.47	0.08 / 0.11	57.1
F01-150-054/12-10	M054	0.02 / 0.03	0.2	0.16	0.4	0.42	0.04 / 0.05	50
F01-150-052/15-12	M052	0.05 / 0.07	0.4	0.25	1	0.47	0.08 / 0.11	57.1
F01-150-054/30-25	M054	0.02 / 0.03	0.2	0.16	0.4	0.42	0.04 / 0.05	50
F01-150-056/45-37	M056	0.02 / 0.03	0.2	0.14	0.4	0.38	0.04 / 0.05	46.7
F01-150-058/60-50	M058	0.02 / 0.03	0.2	0.12	0.5	0.36	0.03 / 0.04	50
F01-300-102/6-5	M102	0.09 / 0.12	0.5	0.4	1.5	0.56	0.15 / 0.2	57.1
F01-300-104/12-10	M104	0.04 / 0.05	0.4	0.3	1	0.42	0.08 / 0.11	50
F01-300-052/15-12	M052	0.05 / 0.07	0.4	0.25	1	0.47	0.08 / 0.11	57.1
F01-300-054/30-25	M054	0.02 / 0.03	0.2	0.16	0.4	0.42	0.04 / 0.05	50
F01-300-056/45-37	M056	0.02 / 0.03	0.2	0.14	0.4	0.38	0.04 / 0.05	46.7
F01-300-058/60-50	M058	0.02 / 0.03	0.2	0.12	0.5	0.36	0.03 / 0.04	50
F01-600-102/15-12	M102	0.09 / 0.12	0.5	0.4	1.5	0.56	0.15 / 0.2	57.1
F01-600-104/30-25	M104	0.04 / 0.05	0.4	0.3	1	0.42	0.08 / 0.11	50
F01-600-106/45-37	M106	0.04 / 0.05	0.4	0.25	0.8	0.4	0.07 / 0.09	50
F01-600-108/60-50	M108	0.02 / 0.03	0.3	0.2	0.6	0.38	0.05 / 0.07	40

**NOTES:**

- Nominal Duty is in according to IEC 60034-1.
- Motor insulation: Class H.
- Due to manufacturing tolerances, there may be deviations from the published values.

**Table 3. 3-PH 400 V (50 Hz)**

Size, Torque and Speed	Motor Type	Power (kW / hp)	In (A)	Is (A)	Icc (A)	Power Factor	Absorbed Power (kW / hp)	Efficiency (%)
F01-150-052/6-5	M052	0.04 / 0.05	0.4	0.25	1	0.47	0.08 / 0.11	50
F01-150-054/12-10	M054	0.02 / 0.03	0.2	0.16	0.4	0.42	0.05 / 0.07	50
F01-150-052/15-12	M052	0.05 / 0.07	0.4	0.25	1	0.47	0.08 / 0.11	50
F01-150-054/30-25	M054	0.02 / 0.03	0.2	0.16	0.4	0.42	0.05 / 0.07	50
F01-150-056/45-37	M056	0.02 / 0.03	0.2	0.14	0.4	0.38	0.04 / 0.05	46.7
F01-150-058/60-50	M058	0.02 / 0.03	0.2	0.12	0.5	0.36	0.03 / 0.04	33.3
F01-300-102/6-5	M102	0.09 / 0.12	0.5	0.4	1.5	0.56	0.16 / 0.21	53.3
F01-300-104/12-10	M104	0.04 / 0.05	0.4	0.3	1	0.42	0.09 / 0.12	50
F01-300-052/15-12	M052	0.05 / 0.07	0.4	0.25	1	0.47	0.08 / 0.11	50
F01-300-054/30-25	M054	0.02 / 0.03	0.2	0.16	0.4	0.42	0.05 / 0.07	50
F01-300-056/45-37	M056	0.02 / 0.03	0.2	0.14	0.4	0.38	0.04 / 0.05	46.7
F01-300-058/60-50	M058	0.02 / 0.03	0.2	0.12	0.5	0.36	0.03 / 0.04	33.3
F01-600-102/15-12	M102	0.09 / 0.12	0.5	0.4	1.5	0.56	0.16 / 0.21	53.3
F01-600-104/30-25	M104	0.04 / 0.05	0.4	0.3	1	0.42	0.09 / 0.12	50
F01-600-106/45-37	M106	0.04 / 0.05	0.4	0.25	0.8	0.4	0.07 / 0.09	50
F01-600-108/60-50	M108	0.02 / 0.03	0.3	0.2	0.6	0.38	0.05 / 0.07	40

**Table 4. 3-PH 400 V (60 Hz)**

Size, Torque and Speed	Motor Type	Power (kW / hp)	In (A)	Is (A)	Icc (A)	Power Factor	Absorbed Power (kW / hp)	Efficiency (%)
F01-150-052/6-5	M052	0.05 / 0.07	0.45	0.28	1.14	0.47	0.09 / 0.12	53.3
F01-150-054/12-10	M054	0.02 / 0.03	0.23	0.18	0.45	0.42	0.05 / 0.07	48
F01-150-052/15-12	M052	0.05 / 0.07	0.45	0.28	1.14	0.47	0.09 / 0.12	53.3
F01-150-054/30-25	M054	0.02 / 0.03	0.23	0.18	0.45	0.42	0.05 / 0.07	48
F01-150-056/45-37	M056	0.02 / 0.03	0.23	0.16	0.45	0.38	0.04 / 0.05	40
F01-150-058/60-50	M058	0.01 / 0.01	0.23	0.13	0.57	0.36	0.03 / 0.04	40
F01-300-102/6-5	M102	0.1 / 0.13	0.57	0.45	1.71	0.56	0.17 / 0.23	56.5
F01-300-104/12-10	M104	0.05 / 0.07	0.45	0.34	1.14	0.42	0.1 / 0.13	53.3
F01-300-052/15-12	M052	0.05 / 0.07	0.45	0.28	1.14	0.47	0.09 / 0.12	53.3
F01-300-054/30-25	M054	0.02 / 0.03	0.23	0.18	0.45	0.42	0.05 / 0.07	48
F01-300-056/45-37	M056	0.02 / 0.03	0.23	0.16	0.45	0.38	0.04 / 0.05	40
F01-300-058/60-50	M058	0.01 / 0.01	0.23	0.13	0.57	0.36	0.03 / 0.04	40
F01-600-102/15-12	M102	0.1 / 0.13	0.57	0.45	1.71	0.56	0.17 / 0.23	56.5
F01-600-104/30-25	M104	0.05 / 0.07	0.45	0.34	1.14	0.42	0.1 / 0.13	53.3
F01-600-106/45-37	M106	0.04 / 0.05	0.45	0.28	0.91	0.4	0.08 / 0.11	51.4
F01-600-108/60-50	M108	0.02 / 0.03	0.34	0.23	0.68	0.38	0.06 / 0.08	40

**Table 5. 3-PH 415 V (50 Hz)**

Size, Torque and Speed	Motor Type	Power (kW / hp)	In (A)	Is (A)	Icc (A)	Power Factor	Absorbed Power (kW / hp)	Efficiency (%)
F01-150-052/6-5	M052	0.04 / 0.05	0.4	0.25	1	0.47	0.08 / 0.11	50
F01-150-054/12-10	M054	0.03 / 0.04	0.2	0.16	0.4	0.42	0.05 / 0.07	50
F01-150-052/15-12	M052	0.04 / 0.05	0.4	0.25	1	0.47	0.08 / 0.11	50
F01-150-054/30-25	M054	0.03 / 0.04	0.2	0.16	0.4	0.42	0.05 / 0.07	50
F01-150-056/45-37	M056	0.02 / 0.03	0.2	0.14	0.4	0.38	0.04 / 0.05	46.7
F01-150-058/60-50	M058	0.01 / 0.01	0.2	0.12	0.5	0.36	0.03 / 0.04	33.3
F01-300-102/6-5	M102	0.08 / 0.11	0.5	0.4	1.5	0.56	0.16 / 0.21	50
F01-300-104/12-10	M104	0.04 / 0.05	0.4	0.3	1	0.42	0.09 / 0.12	44.4
F01-300-052/15-12	M052	0.04 / 0.05	0.4	0.25	1	0.47	0.08 / 0.11	50
F01-300-054/30-25	M054	0.03 / 0.04	0.2	0.16	0.4	0.42	0.05 / 0.07	50
F01-300-056/45-37	M056	0.02 / 0.03	0.2	0.14	0.4	0.38	0.04 / 0.05	46.7
F01-300-058/60-50	M058	0.01 / 0.01	0.2	0.12	0.5	0.36	0.03 / 0.04	33.3
F01-600-102/15-12	M102	0.08 / 0.11	0.5	0.4	1.5	0.56	0.16 / 0.21	50
F01-600-104/30-25	M104	0.04 / 0.05	0.4	0.3	1	0.42	0.09 / 0.12	44.4
F01-600-106/45-37	M106	0.03 / 0.04	0.4	0.25	0.8	0.4	0.07 / 0.09	42.9
F01-600-108/60-50	M108	0.02 / 0.03	0.3	0.2	0.6	0.38	0.05 / 0.07	40

**NOTES:**

- Nominal Duty is in according to IEC 60034-1.
- Motor insulation: Class H.
- Due to manufacturing tolerances, there may be deviations from the published values.

**Table 6. 3-PH 440 V (60 Hz)**

Size, Torque and Speed	Motor Type	Power (kW / hp)	In (A)	Is (A)	Icc (A)	Power Factor	Absorbed Power (kW / hp)	Efficiency (%)
F01-150-052/6-5	M052	0.05 / 0.07	0.4	0.25	1	0.47	0.09 / 0.12	53.3
F01-150-054/12-10	M054	0.02 / 0.03	0.2	0.16	0.4	0.42	0.05 / 0.07	48
F01-150-052/15-12	M052	0.05 / 0.07	0.4	0.25	1	0.47	0.09 / 0.12	53.3
F01-150-054/30-25	M054	0.02 / 0.03	0.2	0.16	0.4	0.42	0.05 / 0.07	48
F01-150-056/45-37	M056	0.02 / 0.03	0.2	0.14	0.4	0.38	0.04 / 0.05	42.5
F01-150-058/60-50	M058	0.02 / 0.03	0.2	0.12	0.5	0.36	0.03 / 0.04	40
F01-300-102/6-5	M102	0.09 / 0.12	0.5	0.4	1.5	0.56	0.17 / 0.23	56.5
F01-300-104/12-10	M104	0.04 / 0.05	0.4	0.3	1	0.42	0.1 / 0.13	53.3
F01-300-052/15-12	M052	0.05 / 0.07	0.4	0.25	1	0.47	0.09 / 0.12	53.3
F01-300-054/30-25	M054	0.02 / 0.03	0.2	0.16	0.4	0.42	0.05 / 0.07	48
F01-300-056/45-37	M056	0.02 / 0.03	0.2	0.14	0.4	0.38	0.04 / 0.05	42.5
F01-300-058/60-50	M058	0.02 / 0.03	0.2	0.12	0.5	0.36	0.03 / 0.04	40
F01-600-102/15-12	M102	0.09 / 0.12	0.5	0.4	1.5	0.56	0.17 / 0.23	56.5
F01-600-104/30-25	M104	0.04 / 0.05	0.4	0.3	1	0.42	0.1 / 0.13	53.3
F01-600-106/45-37	M106	0.04 / 0.05	0.4	0.25	0.8	0.4	0.08 / 0.11	51.4
F01-600-108/60-50	M108	0.02 / 0.03	0.3	0.2	0.6	0.38	0.06 / 0.08	48

**Table 7. 3-PH 460 V (60 Hz)**

Size, Torque and Speed	Motor Type	Power (kW / hp)	In (A)	Is (A)	Icc (A)	Power Factor	Absorbed Power (kW / hp)	Efficiency (%)
F01-150-052/6-5	M052	0.05 / 0.07	0.4	0.25	1	0.47	0.09 / 0.12	53.3
F01-150-054/12-10	M054	0.02 / 0.03	0.2	0.16	0.4	0.42	0.05 / 0.07	48
F01-150-052/15-12	M052	0.05 / 0.07	0.4	0.25	1	0.47	0.09 / 0.12	53.3
F01-150-054/30-25	M054	0.02 / 0.03	0.2	0.16	0.4	0.42	0.05 / 0.07	48
F01-150-056/45-37	M056	0.02 / 0.03	0.2	0.14	0.4	0.38	0.04 / 0.05	42.5
F01-150-058/60-50	M058	0.01 / 0.01	0.2	0.12	0.5	0.36	0.03 / 0.04	40
F01-300-102/6-5	M102	0.1 / 0.13	0.5	0.4	1.5	0.56	0.18 / 0.24	56.5
F01-300-104/12-10	M104	0.05 / 0.07	0.4	0.3	1	0.42	0.1 / 0.13	48
F01-300-052/15-12	M052	0.05 / 0.07	0.4	0.25	1	0.47	0.09 / 0.12	53.3
F01-300-054/30-25	M054	0.02 / 0.03	0.2	0.16	0.4	0.42	0.05 / 0.07	48
F01-300-056/45-37	M056	0.02 / 0.03	0.2	0.14	0.4	0.38	0.04 / 0.05	42.5
F01-300-058/60-50	M058	0.01 / 0.01	0.2	0.12	0.5	0.36	0.03 / 0.04	40
F01-600-102/15-12	M102	0.1 / 0.13	0.5	0.4	1.5	0.56	0.18 / 0.24	56.5
F01-600-104/30-25	M104	0.05 / 0.07	0.4	0.3	1	0.42	0.1 / 0.13	48
F01-600-106/45-37	M106	0.04 / 0.05	0.4	0.25	0.8	0.4	0.08 / 0.11	45
F01-600-108/60-50	M108	0.02 / 0.03	0.3	0.2	0.6	0.38	0.06 / 0.08	40

**Table 8. 3-PH 480 V (60 Hz)**

Size, Torque and Speed	Motor Type	Power (kW / hp)	In (A)	Is (A)	Icc (A)	Power Factor	Absorbed Power (kW / hp)	Efficiency (%)
F01-150-052/6-5	M052	0.05 / 0.07	0.4	0.25	1	0.47	0.1 / 0.13	53.3
F01-150-054/12-10	M054	0.03 / 0.04	0.2	0.16	0.4	0.42	0.06 / 0.08	48
F01-150-052/15-12	M052	0.05 / 0.07	0.4	0.25	1	0.47	0.1 / 0.13	53.3
F01-150-054/30-25	M054	0.03 / 0.04	0.2	0.16	0.4	0.42	0.06 / 0.08	48
F01-150-056/45-37	M056	0.02 / 0.03	0.2	0.14	0.4	0.38	0.04 / 0.05	42.5
F01-150-058/60-50	M058	0.02 / 0.03	0.2	0.12	0.5	0.36	0.04 / 0.05	40
F01-300-102/6-5	M102	0.1 / 0.13	0.5	0.4	1.5	0.56	0.19 / 0.25	53.3
F01-300-104/12-10	M104	0.05 / 0.07	0.4	0.3	1	0.42	0.1 / 0.13	48
F01-300-052/15-12	M052	0.05 / 0.07	0.4	0.25	1	0.47	0.1 / 0.13	53.3
F01-300-054/30-25	M054	0.03 / 0.04	0.2	0.16	0.4	0.42	0.06 / 0.08	48
F01-300-056/45-37	M056	0.02 / 0.03	0.2	0.14	0.4	0.38	0.04 / 0.05	42.5
F01-300-058/60-50	M058	0.02 / 0.03	0.2	0.12	0.5	0.36	0.04 / 0.05	40
F01-600-102/15-12	M102	0.1 / 0.13	0.5	0.4	1.5	0.56	0.19 / 0.25	53.3
F01-600-104/30-25	M104	0.05 / 0.07	0.4	0.3	1	0.42	0.1 / 0.13	48
F01-600-106/45-37	M106	0.04 / 0.05	0.4	0.25	0.8	0.4	0.08 / 0.11	45
F01-600-108/60-50	M108	0.02 / 0.03	0.3	0.2	0.6	0.38	0.06 / 0.08	40

**NOTES:**

- Nominal Duty is in according to IEC 60034-1.
- Motor insulation: Class H.
- Due to manufacturing tolerances, there may be deviations from the published values.

**Table 9. 3-PH 575 V (60 Hz)**

Size, Torque and Speed	Motor Type	Power (kW / hp)	In (A)	Is (A)	Icc (A)	Power Factor	Absorbed Power (kW / hp)	Efficiency (%)
F01-150-052/6-5	M052	0.05 / 0.07	0.33	0.21	0.83	0.47	0.1 / 0.13	53.3
F01-150-054/12-10	M054	0.02 / 0.03	0.17	0.13	0.33	0.42	0.05 / 0.07	48
F01-150-052/15-12	M052	0.05 / 0.07	0.33	0.21	0.83	0.47	0.1 / 0.13	53.3
F01-150-054/30-25	M054	0.02 / 0.03	0.17	0.13	0.33	0.42	0.05 / 0.07	48
F01-150-056/45-37	M056	0.02 / 0.03	0.17	0.12	0.33	0.38	0.05 / 0.07	42.5
F01-150-058/60-50	M058	0.02 / 0.03	0.17	0.1	0.42	0.36	0.04 / 0.05	40
F01-300-102/6-5	M102	0.09 / 0.12	0.42	0.33	1.25	0.56	0.18 / 0.24	53.3
F01-300-104/12-10	M104	0.04 / 0.05	0.33	0.25	0.83	0.42	0.1 / 0.13	48
F01-300-052/15-12	M052	0.05 / 0.07	0.33	0.21	0.83	0.47	0.1 / 0.13	53.3
F01-300-054/30-25	M054	0.02 / 0.03	0.17	0.13	0.33	0.42	0.05 / 0.07	48
F01-300-056/45-37	M056	0.02 / 0.03	0.17	0.12	0.33	0.38	0.05 / 0.07	42.5
F01-300-058/60-50	M058	0.02 / 0.03	0.17	0.1	0.42	0.36	0.04 / 0.05	40
F01-600-102/15-12	M102	0.09 / 0.12	0.42	0.33	1.25	0.56	0.18 / 0.24	53.3
F01-600-104/30-25	M104	0.04 / 0.05	0.33	0.25	0.83	0.42	0.1 / 0.13	48
F01-600-106/45-37	M106	0.04 / 0.05	0.33	0.21	0.67	0.4	0.08 / 0.11	45
F01-600-108/60-50	M108	0.02 / 0.03	0.25	0.17	0.5	0.38	0.06 / 0.08	40

**Table 10. 3-PH 660 V (50 Hz)**

Size, Torque and Speed	Motor Type	Power (kW / hp)	In (A)	Is (A)	Icc (A)	Power Factor	Absorbed Power (kW / hp)	Efficiency (%)
F01-150-052/6-5	M052	0.05 / 0.07	0.4	0.25	1	0.47	0.08 / 0.11	57.1
F01-150-054/12-10	M054	0.02 / 0.03	0.2	0.16	0.4	0.42	0.04 / 0.05	50
F01-150-052/15-12	M052	0.05 / 0.07	0.4	0.25	1	0.47	0.08 / 0.11	57.1
F01-150-054/30-25	M054	0.02 / 0.03	0.2	0.16	0.4	0.42	0.04 / 0.05	50
F01-150-056/45-37	M056	0.02 / 0.03	0.2	0.14	0.4	0.38	0.04 / 0.05	46.7
F01-150-058/60-50	M058	0.02 / 0.03	0.2	0.12	0.5	0.36	0.03 / 0.04	50
F01-300-102/6-5	M102	0.09 / 0.12	0.5	0.4	1.5	0.56	0.15 / 0.2	57.1
F01-300-104/12-10	M104	0.04 / 0.05	0.4	0.3	1	0.42	0.08 / 0.11	50
F01-300-052/15-12	M052	0.05 / 0.07	0.4	0.25	1	0.47	0.08 / 0.11	57.1
F01-300-054/30-25	M054	0.02 / 0.03	0.2	0.16	0.4	0.42	0.04 / 0.05	50
F01-300-056/45-37	M056	0.02 / 0.03	0.2	0.14	0.4	0.38	0.04 / 0.05	46.7
F01-300-058/60-50	M058	0.02 / 0.03	0.2	0.12	0.5	0.36	0.03 / 0.04	50
F01-600-102/15-12	M102	0.09 / 0.12	0.5	0.4	1.5	0.56	0.15 / 0.2	57.1
F01-600-104/30-25	M104	0.04 / 0.05	0.4	0.3	1	0.42	0.08 / 0.11	50
F01-600-106/45-37	M106	0.04 / 0.05	0.4	0.25	0.8	0.4	0.07 / 0.09	50
F01-600-108/60-50	M108	0.02 / 0.03	0.3	0.2	0.6	0.38	0.05 / 0.07	40

**Table 11. 3-PH 440 V (50 Hz)**

Size, Torque and Speed	Motor Type	Power (kW / hp)	In (A)	Is (A)	Icc (A)	Power Factor	Absorbed Power (kW / hp)	Efficiency (%)
F01-150-052/6-5	M052	0.05 / 0.07	0.4	0.25	1	0.47	0.08 / 0.11	57.1
F01-150-054/12-10	M054	0.02 / 0.03	0.2	0.16	0.4	0.42	0.04 / 0.05	50
F01-150-052/15-12	M052	0.05 / 0.07	0.4	0.25	1	0.47	0.08 / 0.11	57.1
F01-150-054/30-25	M054	0.02 / 0.03	0.2	0.16	0.4	0.42	0.04 / 0.05	50
F01-150-056/45-37	M056	0.02 / 0.03	0.2	0.14	0.4	0.38	0.04 / 0.05	46.7
F01-150-058/60-50	M058	0.02 / 0.03	0.2	0.12	0.5	0.36	0.03 / 0.04	50
F01-300-102/6-5	M102	0.09 / 0.12	0.5	0.4	1.5	0.56	0.15 / 0.2	57.1
F01-300-104/12-10	M104	0.04 / 0.05	0.4	0.3	1	0.42	0.08 / 0.11	50
F01-300-052/15-12	M052	0.05 / 0.07	0.4	0.25	1	0.47	0.08 / 0.11	57.1
F01-300-054/30-25	M054	0.02 / 0.03	0.2	0.16	0.4	0.42	0.04 / 0.05	50
F01-300-056/45-37	M056	0.02 / 0.03	0.2	0.14	0.4	0.38	0.04 / 0.05	46.7
F01-300-058/60-50	M058	0.02 / 0.03	0.2	0.12	0.5	0.36	0.03 / 0.04	50
F01-600-102/15-12	M102	0.09 / 0.12	0.5	0.4	1.5	0.56	0.15 / 0.2	57.1
F01-600-104/30-25	M104	0.04 / 0.05	0.4	0.3	1	0.42	0.08 / 0.11	50
F01-600-106/45-37	M106	0.04 / 0.05	0.4	0.25	0.8	0.4	0.07 / 0.09	50
F01-600-108/60-50	M108	0.02 / 0.03	0.3	0.2	0.6	0.38	0.05 / 0.07	40

**NOTES:**

- Nominal Duty is in according to IEC 60034-1.
- Motor insulation: Class H.
- Due to manufacturing tolerances, there may be deviations from the published values.

**Table 12. Modulating Duty (S4-50% 1200 st/h)  
3-PH 380 V (50 Hz)**

Size, Torque and Speed	Motor Type	Power (kW / hp)	In (A)	Is (A)	Icc (A)	Power Factor	Absorbed Power (kW / hp)	Efficiency (%)
F01-150-052/6-5	T052	0.05 / 0.07	0.4	0.25	1	0.47	0.08 / 0.11	57.1
F01-150-054/12-10	T054	0.02 / 0.03	0.2	0.16	0.4	0.42	0.04 / 0.05	50
F01-150-052/15-12	T052	0.05 / 0.07	0.4	0.25	1	0.47	0.08 / 0.11	57.1
F01-150-054/30-25	T054	0.02 / 0.03	0.2	0.16	0.4	0.42	0.04 / 0.05	50
F01-150-056/45-37	T056	0.02 / 0.03	0.2	0.14	0.4	0.38	0.04 / 0.05	46.7
F01-150-058/60-50	T058	0.02 / 0.03	0.2	0.12	0.5	0.36	0.03 / 0.04	50
F01-300-102/6-5	T102	0.09 / 0.12	0.5	0.4	1.5	0.56	0.15 / 0.2	57.1
F01-300-104/12-10	T104	0.04 / 0.05	0.4	0.3	1	0.42	0.08 / 0.11	50
F01-300-052/15-12	T052	0.05 / 0.07	0.4	0.25	1	0.47	0.08 / 0.11	57.1
F01-300-054/30-25	T054	0.02 / 0.03	0.2	0.16	0.4	0.42	0.04 / 0.05	50
F01-300-056/45-37	T056	0.02 / 0.03	0.2	0.14	0.4	0.38	0.04 / 0.05	46.7
F01-300-058/60-50	T058	0.02 / 0.03	0.2	0.12	0.5	0.36	0.03 / 0.04	50
F01-600-102/15-12	T102	0.09 / 0.12	0.5	0.4	1.5	0.56	0.15 / 0.2	57.1
F01-600-104/30-25	T104	0.04 / 0.05	0.4	0.3	1	0.42	0.08 / 0.11	50
F01-600-106/45-37	T106	0.04 / 0.05	0.4	0.25	0.8	0.4	0.07 / 0.09	50
F01-600-108/60-50	T108	0.02 / 0.03	0.3	0.2	0.6	0.38	0.05 / 0.07	40

**Table 13. 3-PH 380 V (60 Hz)**

Size, Torque and Speed	Motor Type	Power (kW / hp)	In (A)	Is (A)	Icc (A)	Power Factor	Absorbed Power (kW / hp)	Efficiency (%)
F01-150-052/6-5	T052	0.05 / 0.07	0.4	0.25	1	0.47	0.08 / 0.11	57.1
F01-150-054/12-10	T054	0.02 / 0.03	0.2	0.16	0.4	0.42	0.04 / 0.05	50
F01-150-052/15-12	T052	0.05 / 0.07	0.4	0.25	1	0.47	0.08 / 0.11	57.1
F01-150-054/30-25	T054	0.02 / 0.03	0.2	0.16	0.4	0.42	0.04 / 0.05	50
F01-150-056/45-37	T056	0.02 / 0.03	0.2	0.14	0.4	0.38	0.04 / 0.05	46.7
F01-150-058/60-50	T058	0.02 / 0.03	0.2	0.12	0.5	0.36	0.03 / 0.04	50
F01-300-102/6-5	T102	0.09 / 0.12	0.5	0.4	1.5	0.56	0.15 / 0.2	57.1
F01-300-104/12-10	T104	0.04 / 0.05	0.4	0.3	1	0.42	0.08 / 0.11	50
F01-300-052/15-12	T052	0.05 / 0.07	0.4	0.25	1	0.47	0.08 / 0.11	57.1
F01-300-054/30-25	T054	0.02 / 0.03	0.2	0.16	0.4	0.42	0.04 / 0.05	50
F01-300-056/45-37	T056	0.02 / 0.03	0.2	0.14	0.4	0.38	0.04 / 0.05	46.7
F01-300-058/60-50	T058	0.02 / 0.03	0.2	0.12	0.5	0.36	0.03 / 0.04	50
F01-600-102/15-12	T102	0.09 / 0.12	0.5	0.4	1.5	0.56	0.15 / 0.2	57.1
F01-600-104/30-25	T104	0.04 / 0.05	0.4	0.3	1	0.42	0.08 / 0.11	50
F01-600-106/45-37	T106	0.04 / 0.05	0.4	0.25	0.8	0.4	0.07 / 0.09	50
F01-600-108/60-50	T108	0.02 / 0.03	0.3	0.2	0.6	0.38	0.05 / 0.07	40

**NOTES:**

- Nominal Duty is in according to IEC 60034-1.
- Motor insulation: Class H.
- Due to manufacturing tolerances, there may be deviations from the published values.

**Table 14. 3-PH 400 V (50 Hz)**

Size, Torque and Speed	Motor Type	Power (kW / hp)	In (A)	Is (A)	Icc (A)	Power Factor	Absorbed Power (kW / hp)	Efficiency (%)
F01-150-052/6-5	T052	0.04 / 0.05	0.4	0.25	1	0.47	0.08 / 0.11	50
F01-150-054/12-10	T054	0.02 / 0.03	0.2	0.16	0.4	0.42	0.05 / 0.07	50
F01-150-052/15-12	T052	0.05 / 0.07	0.4	0.25	1	0.47	0.08 / 0.11	50
F01-150-054/30-25	T054	0.02 / 0.03	0.2	0.16	0.4	0.42	0.05 / 0.07	50
F01-150-056/45-37	T056	0.02 / 0.03	0.2	0.14	0.4	0.38	0.04 / 0.05	46.7
F01-150-058/60-50	T058	0.02 / 0.03	0.2	0.12	0.5	0.36	0.03 / 0.04	33.3
F01-300-102/6-5	T102	0.09 / 0.12	0.5	0.4	1.5	0.56	0.16 / 0.21	53.3
F01-300-104/12-10	T104	0.04 / 0.05	0.4	0.3	1	0.42	0.09 / 0.12	50
F01-300-052/15-12	T052	0.05 / 0.07	0.4	0.25	1	0.47	0.08 / 0.11	50
F01-300-054/30-25	T054	0.02 / 0.03	0.2	0.16	0.4	0.42	0.05 / 0.07	50
F01-300-056/45-37	T056	0.02 / 0.03	0.2	0.14	0.4	0.38	0.04 / 0.05	46.7
F01-300-058/60-50	T058	0.02 / 0.03	0.2	0.12	0.5	0.36	0.03 / 0.04	33.3
F01-600-102/15-12	T102	0.09 / 0.12	0.5	0.4	1.5	0.56	0.16 / 0.21	53.3
F01-600-104/30-25	T104	0.04 / 0.05	0.4	0.3	1	0.42	0.09 / 0.12	50
F01-600-106/45-37	T106	0.04 / 0.05	0.4	0.25	0.8	0.4	0.07 / 0.09	50
F01-600-108/60-50	T108	0.02 / 0.03	0.3	0.2	0.6	0.38	0.05 / 0.07	40

**Table 15. 3-PH 400 V (60 Hz)**

Size, Torque and Speed	Motor Type	Power (kW / hp)	In (A)	Is (A)	Icc (A)	Power Factor	Absorbed Power (kW / hp)	Efficiency (%)
F01-150-052/6-5	T052	0.05 / 0.07	0.45	0.28	1.14	0.47	0.09 / 0.12	53.3
F01-150-054/12-10	T054	0.02 / 0.03	0.23	0.18	0.45	0.42	0.05 / 0.07	48
F01-150-052/15-12	T052	0.05 / 0.07	0.45	0.28	1.14	0.47	0.09 / 0.12	53.3
F01-150-054/30-25	T054	0.02 / 0.03	0.23	0.18	0.45	0.42	0.05 / 0.07	48
F01-150-056/45-37	T056	0.02 / 0.03	0.23	0.16	0.45	0.38	0.04 / 0.05	40
F01-150-058/60-50	T058	0.01 / 0.01	0.23	0.13	0.57	0.36	0.03 / 0.04	40
F01-300-102/6-5	T102	0.1 / 0.13	0.57	0.45	1.71	0.56	0.17 / 0.23	56.5
F01-300-104/12-10	T104	0.05 / 0.07	0.45	0.34	1.14	0.42	0.1 / 0.13	53.3
F01-300-052/15-12	T052	0.05 / 0.07	0.45	0.28	1.14	0.47	0.09 / 0.12	53.3
F01-300-054/30-25	T054	0.02 / 0.03	0.23	0.18	0.45	0.42	0.05 / 0.07	48
F01-300-056/45-37	T056	0.02 / 0.03	0.23	0.16	0.45	0.38	0.04 / 0.05	40
F01-300-058/60-50	T058	0.01 / 0.01	0.23	0.13	0.57	0.36	0.03 / 0.04	40
F01-600-102/15-12	T102	0.1 / 0.13	0.57	0.45	1.71	0.56	0.17 / 0.23	56.5
F01-600-104/30-25	T104	0.05 / 0.07	0.45	0.34	1.14	0.42	0.1 / 0.13	53.3
F01-600-106/45-37	T106	0.04 / 0.05	0.45	0.28	0.91	0.4	0.08 / 0.11	51.4
F01-600-108/60-50	T108	0.02 / 0.03	0.34	0.23	0.68	0.38	0.06 / 0.08	40

**Table 16. 3-PH 415 V (50 Hz)**

Size, Torque and Speed	Motor Type	Power (kW / hp)	In (A)	Is (A)	Icc (A)	Power Factor	Absorbed Power (kW / hp)	Efficiency (%)
F01-150-052/6-5	T052	0.04 / 0.05	0.4	0.25	1	0.47	0.08 / 0.11	50
F01-150-054/12-10	T054	0.03 / 0.04	0.2	0.16	0.4	0.42	0.05 / 0.07	50
F01-150-052/15-12	T052	0.04 / 0.05	0.4	0.25	1	0.47	0.08 / 0.11	50
F01-150-054/30-25	T054	0.03 / 0.04	0.2	0.16	0.4	0.42	0.05 / 0.07	50
F01-150-056/45-37	T056	0.02 / 0.03	0.2	0.14	0.4	0.38	0.04 / 0.05	46.7
F01-150-058/60-50	T058	0.01 / 0.01	0.2	0.12	0.5	0.36	0.03 / 0.04	33.3
F01-300-102/6-5	T102	0.08 / 0.11	0.5	0.4	1.5	0.56	0.16 / 0.21	50
F01-300-104/12-10	T104	0.04 / 0.05	0.4	0.3	1	0.42	0.09 / 0.12	44.4
F01-300-052/15-12	T052	0.04 / 0.05	0.4	0.25	1	0.47	0.08 / 0.11	50
F01-300-054/30-25	T054	0.03 / 0.04	0.2	0.16	0.4	0.42	0.05 / 0.07	50
F01-300-056/45-37	T056	0.02 / 0.03	0.2	0.14	0.4	0.38	0.04 / 0.05	46.7
F01-300-058/60-50	T058	0.01 / 0.01	0.2	0.12	0.5	0.36	0.03 / 0.04	33.3
F01-600-102/15-12	T102	0.08 / 0.11	0.5	0.4	1.5	0.56	0.16 / 0.21	50
F01-600-104/30-25	T104	0.04 / 0.05	0.4	0.3	1	0.42	0.09 / 0.12	44.4
F01-600-106/45-37	T106	0.03 / 0.04	0.4	0.25	0.8	0.4	0.07 / 0.09	42.9
F01-600-108/60-50	T108	0.02 / 0.03	0.3	0.2	0.6	0.38	0.05 / 0.07	40

**NOTES:**

- Nominal Duty is in according to IEC 60034-1.
- Motor insulation: Class H.
- Due to manufacturing tolerances, there may be deviations from the published values.

**Table 17. 3-PH 440 V (60 Hz)**

Size, Torque and Speed	Motor Type	Power (kW / hp)	In (A)	Is (A)	Icc (A)	Power Factor	Absorbed Power (kW / hp)	Efficiency (%)
F01-150-052/6-5	T052	0.05 / 0.07	0.4	0.25	1	0.47	0.09 / 0.12	53.3
F01-150-054/12-10	T054	0.02 / 0.03	0.2	0.16	0.4	0.42	0.05 / 0.07	48
F01-150-052/15-12	T052	0.05 / 0.07	0.4	0.25	1	0.47	0.09 / 0.12	53.3
F01-150-054/30-25	T054	0.02 / 0.03	0.2	0.16	0.4	0.42	0.05 / 0.07	48
F01-150-056/45-37	T056	0.02 / 0.03	0.2	0.14	0.4	0.38	0.04 / 0.05	42.5
F01-150-058/60-50	T058	0.02 / 0.03	0.2	0.12	0.5	0.36	0.03 / 0.04	40
F01-300-102/6-5	T102	0.09 / 0.12	0.5	0.4	1.5	0.56	0.17 / 0.23	56.5
F01-300-104/12-10	T104	0.04 / 0.05	0.4	0.3	1	0.42	0.1 / 0.13	53.3
F01-300-052/15-12	T052	0.05 / 0.07	0.4	0.25	1	0.47	0.09 / 0.12	53.3
F01-300-054/30-25	T054	0.02 / 0.03	0.2	0.16	0.4	0.42	0.05 / 0.07	48
F01-300-056/45-37	T056	0.02 / 0.03	0.2	0.14	0.4	0.38	0.04 / 0.05	42.5
F01-300-058/60-50	T058	0.02 / 0.03	0.2	0.12	0.5	0.36	0.03 / 0.04	40
F01-600-102/15-12	T102	0.09 / 0.12	0.5	0.4	1.5	0.56	0.17 / 0.23	56.5
F01-600-104/30-25	T104	0.04 / 0.05	0.4	0.3	1	0.42	0.1 / 0.13	53.3
F01-600-106/45-37	T106	0.04 / 0.05	0.4	0.25	0.8	0.4	0.08 / 0.11	51.4
F01-600-108/60-50	T108	0.02 / 0.03	0.3	0.2	0.6	0.38	0.06 / 0.08	48

**Table 18. 3-PH 460 V (60 Hz)**

Size, Torque and Speed	Motor Type	Power (kW / hp)	In (A)	Is (A)	Icc (A)	Power Factor	Absorbed Power (kW / hp)	Efficiency (%)
F01-150-052/6-5	T052	0.05 / 0.07	0.4	0.25	1	0.47	0.09 / 0.12	53.3
F01-150-054/12-10	T054	0.02 / 0.03	0.2	0.16	0.4	0.42	0.05 / 0.07	48
F01-150-052/15-12	T052	0.05 / 0.07	0.4	0.25	1	0.47	0.09 / 0.12	53.3
F01-150-054/30-25	T054	0.02 / 0.03	0.2	0.16	0.4	0.42	0.05 / 0.07	48
F01-150-056/45-37	T056	0.02 / 0.03	0.2	0.14	0.4	0.38	0.04 / 0.05	42.5
F01-150-058/60-50	T058	0.01 / 0.01	0.2	0.12	0.5	0.36	0.03 / 0.04	40
F01-300-102/6-5	T102	0.1 / 0.13	0.5	0.4	1.5	0.56	0.18 / 0.24	56.5
F01-300-104/12-10	T104	0.05 / 0.07	0.4	0.3	1	0.42	0.1 / 0.13	48
F01-300-052/15-12	T052	0.05 / 0.07	0.4	0.25	1	0.47	0.09 / 0.12	53.3
F01-300-054/30-25	T054	0.02 / 0.03	0.2	0.16	0.4	0.42	0.05 / 0.07	48
F01-300-056/45-37	T056	0.02 / 0.03	0.2	0.14	0.4	0.38	0.04 / 0.05	42.5
F01-300-058/60-50	T058	0.01 / 0.01	0.2	0.12	0.5	0.36	0.03 / 0.04	40
F01-600-102/15-12	T102	0.1 / 0.13	0.5	0.4	1.5	0.56	0.18 / 0.24	56.5
F01-600-104/30-25	T104	0.05 / 0.07	0.4	0.3	1	0.42	0.1 / 0.13	48
F01-600-106/45-37	T106	0.04 / 0.05	0.4	0.25	0.8	0.4	0.08 / 0.11	45
F01-600-108/60-50	T108	0.02 / 0.03	0.3	0.2	0.6	0.38	0.06 / 0.08	40

**Table 19. 3-PH 480 V (60 Hz)**

Size, Torque and Speed	Motor Type	Power (kW / hp)	In (A)	Is (A)	Icc (A)	Power Factor	Absorbed Power (kW / hp)	Efficiency (%)
F01-150-052/6-5	T052	0.05 / 0.07	0.4	0.25	1	0.47	0.1 / 0.13	53.3
F01-150-054/12-10	T054	0.03 / 0.04	0.2	0.16	0.4	0.42	0.06 / 0.08	48
F01-150-052/15-12	T052	0.05 / 0.07	0.4	0.25	1	0.47	0.1 / 0.13	53.3
F01-150-054/30-25	T054	0.03 / 0.04	0.2	0.16	0.4	0.42	0.06 / 0.08	48
F01-150-056/45-37	T056	0.02 / 0.03	0.2	0.14	0.4	0.38	0.04 / 0.05	42.5
F01-150-058/60-50	T058	0.02 / 0.03	0.2	0.12	0.5	0.36	0.04 / 0.05	40
F01-300-102/6-5	T102	0.1 / 0.13	0.5	0.4	1.5	0.56	0.19 / 0.25	53.3
F01-300-104/12-10	T104	0.05 / 0.07	0.4	0.3	1	0.42	0.1 / 0.13	48
F01-300-052/15-12	T052	0.05 / 0.07	0.4	0.25	1	0.47	0.1 / 0.13	53.3
F01-300-054/30-25	T054	0.03 / 0.04	0.2	0.16	0.4	0.42	0.06 / 0.08	48
F01-300-056/45-37	T056	0.02 / 0.03	0.2	0.14	0.4	0.38	0.04 / 0.05	42.5
F01-300-058/60-50	T058	0.02 / 0.03	0.2	0.12	0.5	0.36	0.04 / 0.05	40
F01-600-102/15-12	T102	0.1 / 0.13	0.5	0.4	1.5	0.56	0.19 / 0.25	53.3
F01-600-104/30-25	T104	0.05 / 0.07	0.4	0.3	1	0.42	0.1 / 0.13	48
F01-600-106/45-37	T106	0.04 / 0.05	0.4	0.25	0.8	0.4	0.08 / 0.11	45
F01-600-108/60-50	T108	0.02 / 0.03	0.3	0.2	0.6	0.38	0.06 / 0.08	40

**NOTES:**

- Nominal Duty is in according to IEC 60034-1.
- Motor insulation: Class H.
- Due to manufacturing tolerances, there may be deviations from the published values.

**Table 20. 3-PH 575 V (60 Hz)**

Size, Torque and Speed	Motor Type	Power (kW / hp)	In (A)	Is (A)	Icc (A)	Power Factor	Absorbed Power (kW / hp)	Efficiency (%)
F01-150-052/6-5	T052	0.05 / 0.07	0.33	0.21	0.83	0.47	0.1 / 0.13	53.3
F01-150-054/12-10	T054	0.02 / 0.03	0.17	0.13	0.33	0.42	0.05 / 0.07	48
F01-150-052/15-12	T052	0.05 / 0.07	0.33	0.21	0.83	0.47	0.1 / 0.13	53.3
F01-150-054/30-25	T054	0.02 / 0.03	0.17	0.13	0.33	0.42	0.05 / 0.07	48
F01-150-056/45-37	T056	0.02 / 0.03	0.17	0.12	0.33	0.38	0.05 / 0.07	42.5
F01-150-058/60-50	T058	0.02 / 0.03	0.17	0.1	0.42	0.36	0.04 / 0.05	40
F01-300-102/6-5	T102	0.09 / 0.12	0.42	0.33	1.25	0.56	0.18 / 0.24	53.3
F01-300-104/12-10	T104	0.04 / 0.05	0.33	0.25	0.83	0.42	0.1 / 0.13	48
F01-300-052/15-12	T052	0.05 / 0.07	0.33	0.21	0.83	0.47	0.1 / 0.13	53.3
F01-300-054/30-25	T054	0.02 / 0.03	0.17	0.13	0.33	0.42	0.05 / 0.07	48
F01-300-056/45-37	T056	0.02 / 0.03	0.17	0.12	0.33	0.38	0.05 / 0.07	42.5
F01-300-058/60-50	T058	0.02 / 0.03	0.17	0.1	0.42	0.36	0.04 / 0.05	40
F01-600-102/15-12	T102	0.09 / 0.12	0.42	0.33	1.25	0.56	0.18 / 0.24	53.3
F01-600-104/30-25	T104	0.04 / 0.05	0.33	0.25	0.83	0.42	0.1 / 0.13	48
F01-600-106/45-37	T106	0.04 / 0.05	0.33	0.21	0.67	0.4	0.08 / 0.11	45
F01-600-108/60-50	T108	0.02 / 0.03	0.25	0.17	0.5	0.38	0.06 / 0.08	40

**Table 21. 3-PH 660 V (50 Hz)**

Size, Torque and Speed	Motor Type	Power (kW / hp)	In (A)	Is (A)	Icc (A)	Power Factor	Absorbed Power (kW / hp)	Efficiency (%)
F01-150-052/6-5	T052	0.05 / 0.07	0.4	0.25	1	0.47	0.08 / 0.11	57.1
F01-150-054/12-10	T054	0.02 / 0.03	0.2	0.16	0.4	0.42	0.04 / 0.05	50
F01-150-052/15-12	T052	0.05 / 0.07	0.4	0.25	1	0.47	0.08 / 0.11	57.1
F01-150-054/30-25	T054	0.02 / 0.03	0.2	0.16	0.4	0.42	0.04 / 0.05	50
F01-150-056/45-37	T056	0.02 / 0.03	0.2	0.14	0.4	0.38	0.04 / 0.05	46.7
F01-150-058/60-50	T058	0.02 / 0.03	0.2	0.12	0.5	0.36	0.03 / 0.04	50
F01-300-102/6-5	T102	0.09 / 0.12	0.5	0.4	1.5	0.56	0.15 / 0.2	57.1
F01-300-104/12-10	T104	0.04 / 0.05	0.4	0.3	1	0.42	0.08 / 0.11	50
F01-300-052/15-12	T052	0.05 / 0.07	0.4	0.25	1	0.47	0.08 / 0.11	57.1
F01-300-054/30-25	T054	0.02 / 0.03	0.2	0.16	0.4	0.42	0.04 / 0.05	50
F01-300-056/45-37	T056	0.02 / 0.03	0.2	0.14	0.4	0.38	0.04 / 0.05	46.7
F01-300-058/60-50	T058	0.02 / 0.03	0.2	0.12	0.5	0.36	0.03 / 0.04	50
F01-600-102/15-12	T102	0.09 / 0.12	0.5	0.4	1.5	0.56	0.15 / 0.2	57.1
F01-600-104/30-25	T104	0.04 / 0.05	0.4	0.3	1	0.42	0.08 / 0.11	50
F01-600-106/45-37	T106	0.04 / 0.05	0.4	0.25	0.8	0.4	0.07 / 0.09	50
F01-600-108/60-50	T108	0.02 / 0.03	0.3	0.2	0.6	0.38	0.05 / 0.07	40

**Table 22. 3-PH 440 V (50 Hz)**

Size, Torque and Speed	Motor Type	Power (kW / hp)	In (A)	Is (A)	Icc (A)	Power Factor	Absorbed Power (kW / hp)	Efficiency (%)
F01-150-052/6-5	T052	0.05 / 0.07	0.4	0.25	1	0.47	0.08 / 0.11	57.1
F01-150-054/12-10	T054	0.02 / 0.03	0.2	0.16	0.4	0.42	0.04 / 0.05	50
F01-150-052/15-12	T052	0.05 / 0.07	0.4	0.25	1	0.47	0.08 / 0.11	57.1
F01-150-054/30-25	T054	0.02 / 0.03	0.2	0.16	0.4	0.42	0.04 / 0.05	50
F01-150-056/45-37	T056	0.02 / 0.03	0.2	0.14	0.4	0.38	0.04 / 0.05	46.7
F01-150-058/60-50	T058	0.02 / 0.03	0.2	0.12	0.5	0.36	0.03 / 0.04	50
F01-300-102/6-5	T102	0.09 / 0.12	0.5	0.4	1.5	0.56	0.15 / 0.2	57.1
F01-300-104/12-10	T104	0.04 / 0.05	0.4	0.3	1	0.42	0.08 / 0.11	50
F01-300-052/15-12	T052	0.05 / 0.07	0.4	0.25	1	0.47	0.08 / 0.11	57.1
F01-300-054/30-25	T054	0.02 / 0.03	0.2	0.16	0.4	0.42	0.04 / 0.05	50
F01-300-056/45-37	T056	0.02 / 0.03	0.2	0.14	0.4	0.38	0.04 / 0.05	46.7
F01-300-058/60-50	T058	0.02 / 0.03	0.2	0.12	0.5	0.36	0.03 / 0.04	50
F01-600-102/15-12	T102	0.09 / 0.12	0.5	0.4	1.5	0.56	0.15 / 0.2	57.1
F01-600-104/30-25	T104	0.04 / 0.05	0.4	0.3	1	0.42	0.08 / 0.11	50
F01-600-106/45-37	T106	0.04 / 0.05	0.4	0.25	0.8	0.4	0.07 / 0.09	50
F01-600-108/60-50	T108	0.02 / 0.03	0.3	0.2	0.6	0.38	0.05 / 0.07	40

**NOTES:**

- Nominal Duty is in according to IEC 60034-1.
- Motor insulation: Class H.
- Due to manufacturing tolerances, there may be deviations from the published values.

## Single-Phase AC

**Table 23. Short-Time Duty (S2-15') | Inching Duty (S4-25% | 60 st/h)**  
**1-PH 220 V (50 Hz)**

Size, Torque and Speed	Motor Type	Power (kW / hp)	In (A)	Is (A)	Icc (A)	Power Factor	Absorbed Power (kW / hp)	Efficiency (%)
F01-150-052/6-5	M052	0.04 / 0.05	2.5	1.4	4.5	0.92	0.28 / 0.38	14.3
F01-150-054/12-10	M054	0.02 / 0.03	1.5	0.8	2.5	0.94	0.17 / 0.23	12.5
F01-150-052/15-12	M052	0.04 / 0.05	2.5	1.4	4.5	0.92	0.28 / 0.38	14.3
F01-150-054/30-25	M054	0.02 / 0.03	1.5	0.8	2.5	0.94	0.17 / 0.23	12.5
F01-150-056/45-37	M056	0.02 / 0.03	1.2	0.6	2	0.97	0.13 / 0.17	11.7
F01-150-058/60-50	M058	0.01 / 0.01	0.8	0.5	1.5	0.96	0.11 / 0.15	10
F01-300-102/6-5	M102	0.08 / 0.11	3	2.1	5.5	0.9	0.42 / 0.56	19.5
F01-300-104/12-10	M104	0.04 / 0.05	2.5	1.4	4.5	0.92	0.28 / 0.38	14.3
F01-300-052/15-12	M052	0.04 / 0.05	2.5	1.4	4.5	0.92	0.28 / 0.38	14.3
F01-300-054/30-25	M054	0.02 / 0.03	1.5	0.8	2.5	0.94	0.17 / 0.23	12.5
F01-300-056/45-37	M056	0.02 / 0.03	1.2	0.6	2	0.97	0.13 / 0.17	11.7
F01-300-058/60-50	M058	0.01 / 0.01	0.8	0.5	1.5	0.96	0.11 / 0.15	10
F01-600-102/15-12	M102	0.08 / 0.11	3	2.1	5.5	0.9	0.42 / 0.56	19.5
F01-600-104/30-25	M104	0.04 / 0.05	2.5	1.4	4.5	0.92	0.28 / 0.38	14.3
F01-600-106/45-37	M106	0.03 / 0.04	2	1.2	3.5	0.94	0.25 / 0.34	12.5
F01-600-108/60-50	M108	0.02 / 0.03	1.5	0.8	2.5	0.94	0.17 / 0.23	12.5

**Table 24. 1-PH 230 V (50 Hz)**

Size, Torque and Speed	Motor Type	Power (kW / hp)	In (A)	Is (A)	Icc (A)	Power Factor	Absorbed Power (kW / hp)	Efficiency (%)
F01-150-052/6-5	M052	0.04 / 0.05	1.41	1.26	2.3	0.92	0.27 / 0.36	15
F01-150-054/12-10	M054	0.02 / 0.03	0.8	0.4	1.3	0.94	0.09 / 0.12	25
F01-150-052/15-12	M052	0.04 / 0.05	1.41	1.26	2.3	0.92	0.27 / 0.36	15
F01-150-054/30-25	M054	0.02 / 0.03	0.8	0.4	1.3	0.94	0.09 / 0.12	25
F01-150-056/45-37	M056	0.02 / 0.03	0.75	0.63	1	0.97	0.14 / 0.19	14.5
F01-150-058/60-50	M058	0.01 / 0.01	0.88	0.84	0.95	0.96	0.18 / 0.24	11
F01-300-102/6-5	M102	0.08 / 0.11	1.5	1	3	0.9	0.21 / 0.28	40
F01-300-104/12-10	M104	0.04 / 0.05	1.3	0.7	2.3	0.92	0.15 / 0.2	28.6
F01-300-052/15-12	M052	0.04 / 0.05	1.41	1.26	2.3	0.92	0.27 / 0.36	15
F01-300-054/30-25	M054	0.02 / 0.03	0.8	0.4	1.3	0.94	0.09 / 0.12	25
F01-300-056/45-37	M056	0.02 / 0.03	0.75	0.63	1	0.97	0.14 / 0.19	14.5
F01-300-058/60-50	M058	0.01 / 0.01	0.88	0.84	0.95	0.96	0.18 / 0.24	11
F01-600-102/15-12	M102	0.08 / 0.11	1.5	1	3	0.9	0.21 / 0.28	40
F01-600-104/30-25	M104	0.04 / 0.05	1.3	0.7	2.3	0.92	0.15 / 0.2	28.6
F01-600-106/45-37	M106	0.03 / 0.04	1	0.6	1.8	0.94	0.13 / 0.17	23.1
F01-600-108/60-50	M108	0.02 / 0.03	0.8	0.4	1.3	0.94	0.09 / 0.12	25

**NOTES:**

- Nominal Duty is in according to IEC 60034-1.
- Motor insulation: Class H.
- Due to manufacturing tolerances, there may be deviations from the published values.

**Table 25. 1-PH 240 V (60 Hz)**

Size, Torque and Speed	Motor Type	Power (kW / hp)	In (A)	Is (A)	Icc (A)	Power Factor	Absorbed Power (kW / hp)	Efficiency (%)
F01-150-052/6-5	M052	0.05 / 0.07	1.41	1.26	2.3	0.92	0.27 / 0.36	15
F01-150-054/12-10	M054	0.02 / 0.03	0.8	0.4	1.3	0.94	0.09 / 0.12	26.7
F01-150-052/15-12	M052	0.04 / 0.05	1.41	1.26	2.3	0.92	0.27 / 0.36	15
F01-150-054/30-25	M054	0.02 / 0.03	0.8	0.4	1.3	0.94	0.09 / 0.12	26.7
F01-150-056/45-37	M056	0.02 / 0.03	0.6	0.3	1	0.97	0.07 / 0.09	24.3
F01-150-058/60-50	M058	0.01 / 0.01	0.4	0.3	0.8	0.96	0.07 / 0.09	20
F01-300-102/6-5	M102	0.08 / 0.11	1.5	1	3	0.9	0.22 / 0.29	45.7
F01-300-104/12-10	M104	0.04 / 0.05	1.3	0.7	2.3	0.92	0.15 / 0.2	32
F01-300-052/15-12	M052	0.04 / 0.05	1.41	1.26	2.3	0.92	0.27 / 0.36	15
F01-300-054/30-25	M054	0.02 / 0.03	0.8	0.4	1.3	0.94	0.09 / 0.12	26.7
F01-300-056/45-37	M056	0.02 / 0.03	0.6	0.3	1	0.97	0.07 / 0.09	24.3
F01-300-058/60-50	M058	0.01 / 0.01	0.4	0.3	0.8	0.96	0.07 / 0.09	20
F01-600-102/15-12	M102	0.08 / 0.11	1.5	1	3	0.9	0.22 / 0.29	45.7
F01-600-104/30-25	M104	0.04 / 0.05	1.3	0.7	2.3	0.92	0.15 / 0.2	32
F01-600-106/45-37	M106	0.03 / 0.04	1	0.6	1.8	0.94	0.14 / 0.19	27.7
F01-600-108/60-50	M108	0.02 / 0.03	0.8	0.4	1.3	0.94	0.09 / 0.12	26.7

**Table 26. 1-PH 240 V (50 Hz)**

Size, Torque and Speed	Motor Type	Power (kW / hp)	In (A)	Is (A)	Icc (A)	Power Factor	Absorbed Power (kW / hp)	Efficiency (%)
F01-150-052/6-5	M052	0.04 / 0.05	1.41	1.26	2.3	0.92	0.27 / 0.36	15
F01-150-054/12-10	M054	0.02 / 0.03	0.8	0.4	1.3	0.94	0.09 / 0.12	22.2
F01-150-052/15-12	M052	0.04 / 0.05	1.41	1.26	2.3	0.92	0.27 / 0.36	15
F01-150-054/30-25	M054	0.02 / 0.03	0.8	0.4	1.3	0.94	0.09 / 0.12	22.2
F01-150-056/45-37	M056	0.01 / 0.01	0.6	0.3	1	0.97	0.07 / 0.09	20
F01-150-058/60-50	M058	0.01 / 0.01	0.4	0.25	0.8	0.96	0.06 / 0.08	20
F01-300-102/6-5	M102	0.08 / 0.11	1.5	1	3	0.9	0.22 / 0.29	38.1
F01-300-104/12-10	M104	0.04 / 0.05	1.3	0.7	2.3	0.92	0.15 / 0.2	26.7
F01-300-052/15-12	M052	0.04 / 0.05	1.41	1.26	2.3	0.92	0.27 / 0.36	15
F01-300-054/30-25	M054	0.02 / 0.03	0.8	0.4	1.3	0.94	0.09 / 0.12	22.2
F01-300-056/45-37	M056	0.01 / 0.01	0.6	0.3	1	0.97	0.07 / 0.09	20
F01-300-058/60-50	M058	0.01 / 0.01	0.4	0.25	0.8	0.96	0.06 / 0.08	20
F01-600-102/15-12	M102	0.08 / 0.11	1.5	1	3	0.9	0.22 / 0.29	38.1
F01-600-104/30-25	M104	0.04 / 0.05	1.3	0.7	2.3	0.92	0.15 / 0.2	26.7
F01-600-106/45-37	M106	0.03 / 0.04	1	0.6	1.8	0.94	0.14 / 0.19	23.1
F01-600-108/60-50	M108	0.02 / 0.03	0.8	0.4	1.3	0.94	0.09 / 0.12	22.2

**NOTES:**

- Nominal Duty is in according to IEC 60034-1.
- Motor insulation: Class H.
- Due to manufacturing tolerances, there may be deviations from the published values.

**Table 27. Short-Time Duty (S2-15') | Inching Duty (S4-25% | 60 st/h)  
1-PH 110 V (50 Hz)**

Size, Torque and Speed	Motor Type	Power (kW / hp)	In (A)	Is (A)	Icc (A)	Power Factor	Absorbed Power (kW / hp)	Efficiency (%)
<b>F01-150-052/6-5</b>	M052	0.04 / 0.05	2.5	1.4	4.5	0.92	0.14 / 0.19	28.6
<b>F01-150-054/12-10</b>	M054	0.02 / 0.03	1.5	0.8	2.5	0.94	0.08 / 0.11	25
<b>F01-150-052/15-12</b>	M052	0.04 / 0.05	2.5	1.4	4.5	0.92	0.14 / 0.19	28.6
<b>F01-150-054/30-25</b>	M054	0.02 / 0.03	1.5	0.8	2.5	0.94	0.08 / 0.11	25
<b>F01-150-056/45-37</b>	M056	0.01 / 0.01	1.2	0.6	2	0.97	0.06 / 0.08	23.3
<b>F01-150-058/60-50</b>	M058	0.01 / 0.01	0.8	0.5	1.5	0.96	0.05 / 0.07	20
<b>F01-300-102/6-5</b>	M102	0.08 / 0.11	3	2.1	5.5	0.9	0.21 / 0.28	40
<b>F01-300-104/12-10</b>	M104	0.04 / 0.05	2.5	1.4	4.5	0.92	0.14 / 0.19	28.6
<b>F01-300-052/15-12</b>	M052	0.04 / 0.05	2.5	1.4	4.5	0.92	0.14 / 0.19	28.6
<b>F01-300-054/30-25</b>	M054	0.02 / 0.03	1.5	0.8	2.5	0.94	0.08 / 0.11	25
<b>F01-300-056/45-37</b>	M056	0.01 / 0.01	1.2	0.6	2	0.97	0.06 / 0.08	23.3
<b>F01-300-058/60-50</b>	M058	0.01 / 0.01	0.8	0.5	1.5	0.96	0.05 / 0.07	20
<b>F01-600-102/15-12</b>	M102	0.08 / 0.11	3	2.1	5.5	0.9	0.21 / 0.28	40
<b>F01-600-104/30-25</b>	M104	0.04 / 0.05	2.5	1.4	4.5	0.92	0.14 / 0.19	28.6
<b>F01-600-106/45-37</b>	M106	0.03 / 0.04	2	1.2	3.5	0.94	0.12 / 0.16	25
<b>F01-600-108/60-50</b>	M108	0.02 / 0.03	1.5	0.8	2.5	0.94	0.08 / 0.11	25

**Table 28. 1-PH 115 V (60 Hz)**

Size, Torque and Speed	Motor Type	Power (kW / hp)	In (A)	Is (A)	Icc (A)	Power Factor	Absorbed Power (kW / hp)	Efficiency (%)
<b>F01-150-052/6-5</b>	M052	0.05 / 0.07	2.5	1.4	4.5	0.92	0.15 / 0.2	34.3
<b>F01-150-054/12-10</b>	M054	0.03 / 0.04	1.5	0.8	2.5	0.94	0.09 / 0.12	30
<b>F01-150-052/15-12</b>	M052	0.05 / 0.07	2.5	1.4	4.5	0.92	0.15 / 0.2	34.3
<b>F01-150-054/30-25</b>	M054	0.03 / 0.04	1.5	0.8	2.5	0.94	0.09 / 0.12	30
<b>F01-150-056/45-37</b>	M056	0.02 / 0.03	1.2	0.6	2	0.97	0.07 / 0.09	28.3
<b>F01-150-058/60-50</b>	M058	0.01 / 0.01	0.8	0.5	1.5	0.96	0.06 / 0.08	24
<b>F01-300-102/6-5</b>	M102	0.1 / 0.13	3	2.1	5.5	0.9	0.22 / 0.29	45.7
<b>F01-300-104/12-10</b>	M104	0.05 / 0.07	2.5	1.4	4.5	0.92	0.15 / 0.2	34.3
<b>F01-300-052/15-12</b>	M052	0.05 / 0.07	2.5	1.4	4.5	0.92	0.15 / 0.2	34.3
<b>F01-300-054/30-25</b>	M054	0.03 / 0.04	1.5	0.8	2.5	0.94	0.09 / 0.12	30
<b>F01-300-056/45-37</b>	M056	0.02 / 0.03	1.2	0.6	2	0.97	0.07 / 0.09	28.3
<b>F01-300-058/60-50</b>	M058	0.01 / 0.01	0.8	0.5	1.5	0.96	0.06 / 0.08	24
<b>F01-600-102/15-12</b>	M102	0.1 / 0.13	3	2.1	5.5	0.9	0.22 / 0.29	45.7
<b>F01-600-104/30-25</b>	M104	0.05 / 0.07	2.5	1.4	4.5	0.92	0.15 / 0.2	34.3
<b>F01-600-106/45-37</b>	M106	0.04 / 0.05	2	1.2	3.5	0.94	0.13 / 0.17	27.7
<b>F01-600-108/60-50</b>	M108	0.03 / 0.04	1.5	0.8	2.5	0.94	0.09 / 0.12	30

**NOTES:**

- Nominal Duty is in according to IEC 60034-1.
- Motor insulation: Class H.
- Due to manufacturing tolerances, there may be deviations from the published values.

**Table 29. 1-PH 120 V (60 Hz)**

Size, Torque and Speed	Motor Type	Power (kW / hp)	In (A)	Is (A)	Icc (A)	Power Factor	Absorbed Power (kW / hp)	Efficiency (%)
<b>F01-150-052/6-5</b>	M052	0.05 / 0.07	2.5	1.4	4.5	0.92	0.15 / 0.2	32
<b>F01-150-054/12-10</b>	M054	0.02 / 0.03	1.5	0.8	2.5	0.94	0.09 / 0.12	30
<b>F01-150-052/15-12</b>	M052	0.04 / 0.05	2.5	1.4	4.5	0.92	0.15 / 0.2	32
<b>F01-150-054/30-25</b>	M054	0.02 / 0.03	1.5	0.8	2.5	0.94	0.09 / 0.12	30
<b>F01-150-056/45-37</b>	M056	0.01 / 0.01	1.2	0.6	2	0.97	0.07 / 0.09	28.3
<b>F01-150-058/60-50</b>	M058	0.01 / 0.01	0.8	0.5	1.5	0.96	0.06 / 0.08	24
<b>F01-300-102/6-5</b>	M102	0.08 / 0.11	3	2.1	5.5	0.9	0.22 / 0.29	45.7
<b>F01-300-104/12-10</b>	M104	0.04 / 0.05	2.5	1.4	4.5	0.92	0.15 / 0.2	32
<b>F01-300-052/15-12</b>	M052	0.04 / 0.05	2.5	1.4	4.5	0.92	0.15 / 0.2	32
<b>F01-300-054/30-25</b>	M054	0.02 / 0.03	1.5	0.8	2.5	0.94	0.09 / 0.12	30
<b>F01-300-056/45-37</b>	M056	0.01 / 0.01	1.2	0.6	2	0.97	0.07 / 0.09	28.3
<b>F01-300-058/60-50</b>	M058	0.01 / 0.01	0.8	0.5	1.5	0.96	0.06 / 0.08	24
<b>F01-600-102/15-12</b>	M102	0.08 / 0.11	3	2.1	5.5	0.9	0.22 / 0.29	45.7
<b>F01-600-104/30-25</b>	M104	0.04 / 0.05	2.5	1.4	4.5	0.92	0.15 / 0.2	32
<b>F01-600-106/45-37</b>	M106	0.03 / 0.04	2	1.2	3.5	0.94	0.14 / 0.19	27.7
<b>F01-600-108/60-50</b>	M108	0.02 / 0.03	1.5	0.8	2.5	0.94	0.09 / 0.12	30

**NOTES:**

- Nominal Duty is in according to IEC 60034-1.
- Motor insulation: Class H.
- Due to manufacturing tolerances, there may be deviations from the published values.

**Table 30. Modulating Duty (S4-50% 1200 st/h)  
1-PH 220 V (50 Hz)**

Size, Torque and Speed	Motor Type	Power (kW / hp)	In (A)	Is (A)	Icc (A)	Power Factor	Absorbed Power (kW / hp)	Efficiency (%)
F01-150-052/6-5	T052	0.04 / 0.05	2.5	1.4	4.5	0.92	0.28 / 0.38	14.3
F01-150-054/12-10	T054	0.02 / 0.03	1.5	0.8	2.5	0.94	0.17 / 0.23	12.5
F01-150-052/15-12	T052	0.04 / 0.05	2.5	1.4	4.5	0.92	0.28 / 0.38	14.3
F01-150-054/30-25	T054	0.02 / 0.03	1.5	0.8	2.5	0.94	0.17 / 0.23	12.5
F01-150-056/45-37	T056	0.02 / 0.03	1.2	0.6	2	0.97	0.13 / 0.17	11.7
F01-150-058/60-50	T058	0.01 / 0.01	0.8	0.5	1.5	0.96	0.11 / 0.15	10
F01-300-102/6-5	T102	0.08 / 0.11	3	2.1	5.5	0.9	0.42 / 0.56	19.5
F01-300-104/12-10	T104	0.04 / 0.05	2.5	1.4	4.5	0.92	0.28 / 0.38	14.3
F01-300-052/15-12	T052	0.04 / 0.05	2.5	1.4	4.5	0.92	0.28 / 0.38	14.3
F01-300-054/30-25	T054	0.02 / 0.03	1.5	0.8	2.5	0.94	0.17 / 0.23	12.5
F01-300-056/45-37	T056	0.02 / 0.03	1.2	0.6	2	0.97	0.13 / 0.17	11.7
F01-300-058/60-50	T058	0.01 / 0.01	0.8	0.5	1.5	0.96	0.11 / 0.15	10
F01-600-102/15-12	T102	0.08 / 0.11	3	2.1	5.5	0.9	0.42 / 0.56	19.5
F01-600-104/30-25	T104	0.04 / 0.05	2.5	1.4	4.5	0.92	0.28 / 0.38	14.3
F01-600-106/45-37	T106	0.03 / 0.04	2	1.2	3.5	0.94	0.25 / 0.34	12.5
F01-600-108/60-50	T108	0.02 / 0.03	1.5	0.8	2.5	0.94	0.17 / 0.23	12.5

**Table 31. 1-PH 230 V (50 Hz)**

Size, Torque and Speed	Motor Type	Power (kW / hp)	In (A)	Is (A)	Icc (A)	Power Factor	Absorbed Power (kW / hp)	Efficiency (%)
F01-150-052/6-5	T052	0.04 / 0.05	1.25	0.7	2.3	0.92	0.15 / 0.2	28.6
F01-150-054/12-10	T054	0.02 / 0.03	0.8	0.4	1.3	0.94	0.09 / 0.12	25
F01-150-052/15-12	T052	0.04 / 0.05	1.25	0.7	2.3	0.92	0.15 / 0.2	28.6
F01-150-054/30-25	T054	0.02 / 0.03	0.8	0.4	1.3	0.94	0.09 / 0.12	25
F01-150-056/45-37	T056	0.02 / 0.03	0.6	0.3	1	0.97	0.07 / 0.09	23.3
F01-150-058/60-50	T058	0.01 / 0.01	0.4	0.25	0.8	0.96	0.06 / 0.08	20
F01-300-102/6-5	T102	0.08 / 0.11	1.5	1	3	0.9	0.21 / 0.28	40
F01-300-104/12-10	T104	0.04 / 0.05	1.3	0.7	2.3	0.92	0.15 / 0.2	28.6
F01-300-052/15-12	T052	0.04 / 0.05	1.25	0.7	2.3	0.92	0.15 / 0.2	28.6
F01-300-054/30-25	T054	0.02 / 0.03	0.8	0.4	1.3	0.94	0.09 / 0.12	25
F01-300-056/45-37	T056	0.02 / 0.03	0.6	0.3	1	0.97	0.07 / 0.09	23.3
F01-300-058/60-50	T058	0.01 / 0.01	0.4	0.25	0.8	0.96	0.06 / 0.08	20
F01-600-102/15-12	T102	0.08 / 0.11	1.5	1	3	0.9	0.21 / 0.28	40
F01-600-104/30-25	T104	0.04 / 0.05	1.3	0.7	2.3	0.92	0.15 / 0.2	28.6
F01-600-106/45-37	T106	0.03 / 0.04	1	0.6	1.8	0.94	0.13 / 0.17	23.1
F01-600-108/60-50	T108	0.02 / 0.03	0.8	0.4	1.3	0.94	0.09 / 0.12	25

**NOTES:**

- Nominal Duty is in according to IEC 60034-1.
- Motor insulation: Class H.
- Due to manufacturing tolerances, there may be deviations from the published values.

**Table 32. 1-PH 240 V (60 Hz)**

Size, Torque and Speed	Motor Type	Power (kW / hp)	In (A)	Is (A)	Icc (A)	Power Factor	Absorbed Power (kW / hp)	Efficiency (%)
F01-150-052/6-5	T052	0.05 / 0.07	1.3	0.7	2.3	0.92	0.15 / 0.2	32
F01-150-054/12-10	T054	0.02 / 0.03	0.8	0.4	1.3	0.94	0.09 / 0.12	26.7
F01-150-052/15-12	T052	0.04 / 0.05	1.3	0.7	2.3	0.92	0.15 / 0.2	32
F01-150-054/30-25	T054	0.02 / 0.03	0.8	0.4	1.3	0.94	0.09 / 0.12	26.7
F01-150-056/45-37	T056	0.02 / 0.0	0.6	0.3	1	0.97	0.07 / 0.09	24.3
F01-150-058/60-50	T058	0.01 / 0.01	0.4	0.3	0.8	0.96	0.07 / 0.09	20
F01-300-102/6-5	T102	0.08 / 0.11	1.5	1	3	0.9	0.22 / 0.29	45.7
F01-300-104/12-10	T104	0.04 / 0.05	1.3	0.7	2.3	0.92	0.15 / 0.2	32
F01-300-052/15-12	T052	0.04 / 0.05	1.3	0.7	2.3	0.92	0.15 / 0.2	32
F01-300-054/30-25	T054	0.02 / 0.03	0.8	0.4	1.3	0.94	0.09 / 0.12	26.7
F01-300-056/45-37	T056	0.02 / 0.03	0.6	0.3	1	0.97	0.07 / 0.09	24.3
F01-300-058/60-50	T058	0.01 / 0.01	0.4	0.3	0.8	0.96	0.07 / 0.09	20
F01-600-102/15-12	T102	0.08 / 0.11	1.5	1	3	0.9	0.22 / 0.29	45.7
F01-600-104/30-25	T104	0.04 / 0.05	1.3	0.7	2.3	0.92	0.15 / 0.2	32
F01-600-106/45-37	T106	0.03 / 0.04	1	0.6	1.8	0.94	0.14 / 0.19	27.7
F01-600-108/60-50	T108	0.02 / 0.03	0.8	0.4	1.3	0.94	0.09 / 0.12	26.7

**Table 33. 1-PH 240 V (50 Hz)**

Size, Torque and Speed	Motor Type	Power (kW / hp)	In (A)	Is (A)	Icc (A)	Power Factor	Absorbed Power (kW / hp)	Efficiency (%)
F01-150-052/6-5	T052	0.04 / 0.05	1.25	0.7	2.3	0.92	0.15 / 0.2	26.7
F01-150-054/12-10	T054	0.02 / 0.03	0.8	0.4	1.3	0.94	0.09 / 0.12	22.2
F01-150-052/15-12	T052	0.04 / 0.05	1.25	0.7	2.3	0.92	0.15 / 0.2	26.7
F01-150-054/30-25	T054	0.02 / 0.03	0.8	0.4	1.3	0.94	0.09 / 0.12	22.2
F01-150-056/45-37	T056	0.01 / 0.01	0.6	0.3	1	0.97	0.07 / 0.09	20
F01-150-058/60-50	T058	0.01 / 0.01	0.4	0.25	0.8	0.96	0.06 / 0.08	20
F01-300-102/6-5	T102	0.08 / 0.11	1.5	1	3	0.9	0.22 / 0.29	38.1
F01-300-104/12-10	T104	0.04 / 0.05	1.3	0.7	2.3	0.92	0.15 / 0.2	26.7
F01-300-052/15-12	T052	0.04 / 0.05	1.25	0.7	2.3	0.92	0.15 / 0.2	26.7
F01-300-054/30-25	T054	0.02 / 0.03	0.8	0.4	1.3	0.94	0.09 / 0.12	22.2
F01-300-056/45-37	T056	0.01 / 0.01	0.6	0.3	1	0.97	0.07 / 0.09	20
F01-300-058/60-50	T058	0.01 / 0.01	0.4	0.25	0.8	0.96	0.06 / 0.08	20
F01-600-102/15-12	T102	0.08 / 0.11	1.5	1	3	0.9	0.22 / 0.29	38.1
F01-600-104/30-25	T104	0.04 / 0.05	1.3	0.7	2.3	0.92	0.15 / 0.2	26.7
F01-600-106/45-37	T106	0.03 / 0.04	1.35	1.25	1.8	0.94	0.28 / 0.38	12.1
F01-600-108/60-50	T108	0.02 / 0.03	0.8	0.4	1.3	0.94	0.09 / 0.12	22.2

**NOTES:**

- Nominal Duty is in according to IEC 60034-1.
- Motor insulation: Class H.
- Due to manufacturing tolerances, there may be deviations from the published values.

**Table 34. Modulating Duty (S4-50% 1200 st/h)  
1-PH 110 V (50 Hz)**

Size, Torque and Speed	Motor Type	Power (kW / hp)	In (A)	Is (A)	Icc (A)	Power Factor	Absorbed Power (kW / hp)	Efficiency (%)
F01-150-052/6-5	T052	0.04 / 0.05	2.5	1.4	4.5	0.92	0.14 / 0.19	28.6
F01-150-054/12-10	T054	0.02 / 0.03	1.5	0.8	2.5	0.94	0.08 / 0.11	25
F01-150-052/15-12	T052	0.04 / 0.05	2.5	1.4	4.5	0.92	0.14 / 0.19	28.6
F01-150-054/30-25	T054	0.02 / 0.03	1.5	0.8	2.5	0.94	0.08 / 0.11	25
F01-150-056/45-37	T056	0.01 / 0.01	1.2	0.6	2	0.97	0.06 / 0.08	23.3
F01-150-058/60-50	T058	0.01 / 0.01	0.8	0.5	1.5	0.96	0.05 / 0.07	20
F01-300-102/6-5	T102	0.08 / 0.11	3	2.1	5.5	0.9	0.21 / 0.28	40
F01-300-104/12-10	T104	0.04 / 0.05	2.5	1.4	4.5	0.92	0.14 / 0.19	28.6
F01-300-052/15-12	T052	0.04 / 0.05	2.5	1.4	4.5	0.92	0.14 / 0.19	28.6
F01-300-054/30-25	T054	0.02 / 0.03	1.5	0.8	2.5	0.94	0.08 / 0.11	25
F01-300-056/45-37	T056	0.01 / 0.01	1.2	0.6	2	0.97	0.06 / 0.08	23.3
F01-300-058/60-50	T058	0.01 / 0.01	0.8	0.5	1.5	0.96	0.05 / 0.07	20
F01-600-102/15-12	T102	0.08 / 0.11	3	2.1	5.5	0.9	0.21 / 0.28	40
F01-600-104/30-25	T104	0.04 / 0.05	2.5	1.4	4.5	0.92	0.14 / 0.19	28.6
F01-600-106/45-37	T106	0.03 / 0.04	2	1.2	3.5	0.94	0.12 / 0.16	25
F01-600-108/60-50	T108	0.02 / 0.03	1.5	0.8	2.5	0.94	0.08 / 0.11	25

**Table 35. 1-PH 115 V (60 Hz)**

Size, Torque and Speed	Motor Type	Power (kW / hp)	In (A)	Is (A)	Icc (A)	Power Factor	Absorbed Power (kW / hp)	Efficiency (%)
F01-150-052/6-5	T052	0.05 / 0.07	2.5	1.4	4.5	0.92	0.15 / 0.2	34.3
F01-150-054/12-10	T054	0.03 / 0.04	1.5	0.8	2.5	0.94	0.09 / 0.12	30
F01-150-052/15-12	T052	0.05 / 0.07	2.5	1.4	4.5	0.92	0.15 / 0.2	34.3
F01-150-054/30-25	T054	0.03 / 0.04	1.5	0.8	2.5	0.94	0.09 / 0.12	30
F01-150-056/45-37	T056	0.02 / 0.03	1.2	0.6	2	0.97	0.07 / 0.09	28.3
F01-150-058/60-50	T058	0.01 / 0.01	0.8	0.5	1.5	0.96	0.06 / 0.08	24
F01-300-102/6-5	T102	0.1 / 0.13	3	2.1	5.5	0.9	0.22 / 0.29	45.7
F01-300-104/12-10	T104	0.05 / 0.07	2.5	1.4	4.5	0.92	0.15 / 0.2	34.3
F01-300-052/15-12	T052	0.05 / 0.07	2.5	1.4	4.5	0.92	0.15 / 0.2	34.3
F01-300-054/30-25	T054	0.03 / 0.04	1.5	0.8	2.5	0.94	0.09 / 0.12	30
F01-300-056/45-37	T056	0.02 / 0.03	1.2	0.6	2	0.97	0.07 / 0.09	28.3
F01-300-058/60-50	T058	0.01 / 0.01	0.8	0.5	1.5	0.96	0.06 / 0.08	24
F01-600-102/15-12	T102	0.1 / 0.13	3	2.1	5.5	0.9	0.22 / 0.29	45.7
F01-600-104/30-25	T104	0.05 / 0.07	2.5	1.4	4.5	0.92	0.15 / 0.2	34.3
F01-600-106/45-37	T106	0.04 / 0.05	2	1.2	3.5	0.94	0.13 / 0.17	27.7
F01-600-108/60-50	T108	0.03 / 0.04	1.5	0.8	2.5	0.94	0.09 / 0.12	30

**NOTES:**

- Nominal Duty is in according to IEC 60034-1.
- Motor insulation: Class H.
- Due to manufacturing tolerances, there may be deviations from the published values.

**Table 36. 1-PH 120 V (60 Hz)**

Size, Torque and Speed	Motor Type	Power (kW / hp)	In (A)	Is (A)	Icc (A)	Power Factor	Absorbed Power (kW / hp)	Efficiency (%)
<b>F01-150-052/6-5</b>	T052	0.05 / 0.07	2.5	1.4	4.5	0.92	0.15 / 0.2	32
<b>F01-150-054/12-10</b>	T054	0.02 / 0.03	1.5	0.8	2.5	0.94	0.09 / 0.12	30
<b>F01-150-052/15-12</b>	T052	0.04 / 0.05	2.5	1.4	4.5	0.92	0.15 / 0.2	32
<b>F01-150-054/30-25</b>	T054	0.02 / 0.03	1.5	0.8	2.5	0.94	0.09 / 0.12	30
<b>F01-150-056/45-37</b>	T056	0.01 / 0.01	1.2	0.6	2	0.97	0.07 / 0.09	28.3
<b>F01-150-058/60-50</b>	T058	0.01 / 0.01	0.8	0.5	1.5	0.96	0.06 / 0.08	24
<b>F01-300-102/6-5</b>	T102	0.08 / 0.11	3	2.1	5.5	0.9	0.22 / 0.29	45.7
<b>F01-300-104/12-10</b>	T104	0.04 / 0.05	2.5	1.4	4.5	0.92	0.15 / 0.2	32
<b>F01-300-052/15-12</b>	T052	0.04 / 0.05	2.5	1.4	4.5	0.92	0.15 / 0.2	32
<b>F01-300-054/30-25</b>	T054	0.02 / 0.03	1.5	0.8	2.5	0.94	0.09 / 0.12	30
<b>F01-300-056/45-37</b>	T056	0.01 / 0.01	1.2	0.6	2	0.97	0.07 / 0.09	28.3
<b>F01-300-058/60-50</b>	T058	0.01 / 0.01	0.8	0.5	1.5	0.96	0.06 / 0.08	24
<b>F01-600-102/15-12</b>	T102	0.08 / 0.11	3	2.1	5.5	0.9	0.22 / 0.29	45.7
<b>F01-600-104/30-25</b>	T104	0.04 / 0.05	2.5	1.4	4.5	0.92	0.15 / 0.2	32
<b>F01-600-106/45-37</b>	T106	0.03 / 0.04	2	1.2	3.5	0.94	0.14 / 0.19	27.7
<b>F01-600-108/60-50</b>	T108	0.02 / 0.03	1.5	0.8	2.5	0.94	0.09 / 0.12	30

**NOTES:**

- Nominal Duty is in according to IEC 60034-1.
- Motor insulation: Class H.
- Due to manufacturing tolerances, there may be deviations from the published values.

## Direct Current

**Table 37. Short-Time Duty (S2-15') | Inching Duty (S4-25% | 60 st/h)  
24 V DC**

Size, Torque and Speed	Motor Type	Power (kW / hp)	In (A)	Is (A)	Icc (A)	Power Factor	Absorbed Power (kW / hp)	Efficiency (%)
<b>F01-150-052/6-5</b>	M052	0.05 / 0.07	6.43	4.73	18.6	0	0.11 / 0.15	45.5
<b>F01-150-052/15-12</b>	M052	0.05 / 0.07	6.43	4.73	18.6	0	0.11 / 0.15	45.5
<b>F01-300-052/15-12</b>	M052	0.05 / 0.07	6.43	4.73	18.6	0	0.11 / 0.15	45.5

**NOTES:**

- Nominal Duty is in according to IEC 60034-1.
- Motor insulation: Class H.
- Due to manufacturing tolerances, there may be deviations from the published values.

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