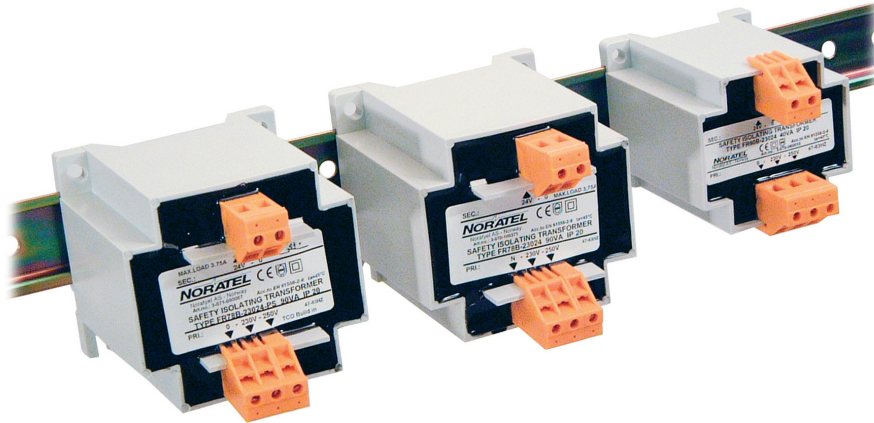


Safety isolating transformer, IPoo



Type FR & FR-PS

Single-phase safety isolating transformer designed and tested according to EN61558-2-6. The construction is produced with modern technology and satisfies ever-increasing requirements of service life and reliability. The FR transformers have separate insulated windings, are moulded in self-extinguishing polyurethane and capsulated in plastic.

For fixed installation, simple and easy assembly in cabinets or switchboards. Produced according to DnV, Lloyds register of shipping and Bureau Veritas regulations which include 45°C ambient temperature. Insulation class II, double isolated.

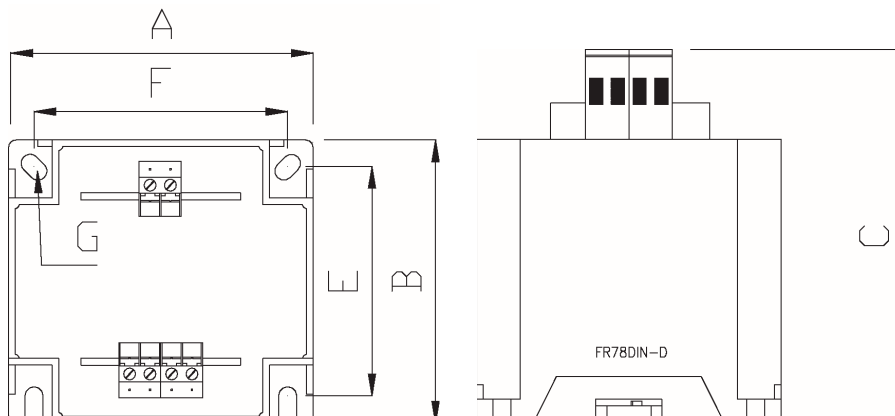
Applications:

Industrial safety isolating transformer designed for installation in processing industry and switch-boards. Suitable for SELV installations which require safety isolating transformer approved according to the CE directives.

All FR60B, FR78B and FR84B models are supplied with integrated optional DIN-rail mounting system (35mm DIN-rail).

Custom designed models on request.

| Type | Dimensions (mm) | | | | | | Wt (Kg) |
|--------|-----------------|-----|-----|----|-----|-------|---------|
| | A | B | C | E | F | G | |
| FR60B | 68 | 63 | 95 | 50 | 56 | 4,4x5 | 0,9 |
| FR78B | 85 | 79 | 103 | 63 | 70 | 5x8 | 1,7 |
| FR84B | 90 | 84 | 110 | 68 | 76 | 5x7 | 2,3 |
| FR96B | 105 | 89 | 115 | 70 | 89 | 6x8 | 3,2 |
| FR96C | 130 | 115 | 119 | 87 | 105 | 8x10 | 4,4 |
| FR120B | 130 | 115 | 137 | 87 | 105 | 8x10 | 5,9 |



Technical specifications

- Input voltage: 230-250 V
380-400-415-440 V
- Frequency: 47-63 Hz
- Output voltage: 12 V, 24 V, 2x24 V
- According to: EN61558-2-6
- Test/insulating voltage: 4/5,2kV AC RMS
- Construction class: II
- Insulation class: B (130°C)
- Ambient temp. (t_a): 45°C
- Degree of protection: IP20

The FR transformers must be protected against short circuit and overload with separate fuse arrangement. Information on losses and short-circuit currents on page I-18 & I-19

All FR-PS models are short circuit and overload protected with built in PTC fuse.

| Type | Voltage Sec. (V) | Current Sec. (A) | Power (VA) | Art. no. |
|----------------------------|------------------|------------------|------------|--------------|
| 230-250/12V | | | | |
| FR60B-23012 | 12 | 3,3 | 40 | 3-071-060040 |
| FR78B-23012 | 12 | 7,5 | 90 | 3-071-078050 |
| FR84B-23012 | 12 | 10,8 | 130 | 3-071-084100 |
| FR96B-23012 | 12 | 15 | 180 | 3-071-096140 |
| FR96C-23012 | 12 | 20,8 | 250 | 3-071-096150 |
| 230-250/24V | | | | |
| FR60B-23024 | 24 | 1,7 | 40 | 3-070-060010 |
| FR78B-23024 | 24 | 3,8 | 90 | 3-070-100371 |
| FR84B-23024 | 24 | 5,4 | 130 | 3-070-100372 |
| FR96B-23024 | 24 | 7,5 | 180 | 3-071-096160 |
| FR96C-23024 | 24 | 10,4 | 250 | 3-070-100374 |
| FR120B-23024 | 24 | 16,7 | 400 | 3-071-120070 |
| 380-400-415-440/24V | | | | |
| FR60B-38024 | 24 | 1,7 | 40 | 3-071-060050 |
| FR78B-38024 | 24 | 3,8 | 90 | 3-070-078010 |
| FR84B-38024 | 24 | 5,4 | 130 | 3-070-100671 |
| FR96B-38024 | 24 | 7,5 | 180 | 3-071-096170 |
| FR96C-38024 | 24 | 10,4 | 250 | 3-071-096180 |
| FR120B-38024 | 24 | 16,7 | 400 | 3-071-120090 |

| Type | Spenning Sek. (V) | Strøm Sek. (A) | Effekt (VA) | Art. nr. |
|----------------------|-------------------|----------------|-------------|--------------|
| 230-250/24V | | | | |
| FR60B-23024-PS | 24 | 1,7 | 40 | 3-071-000066 |
| FR78B-23024-PS | 24 | 3,8 | 90 | 3-071-000067 |
| FR84B-23024-PS | 24 | 5,4 | 130 | 3-071-000068 |
| 230-250/2x24V | | | | |
| FR78B-2302424-PS | 2x24 | 2x1,8 | 2x45 | 3-071-000077 |

Wiring diagram

