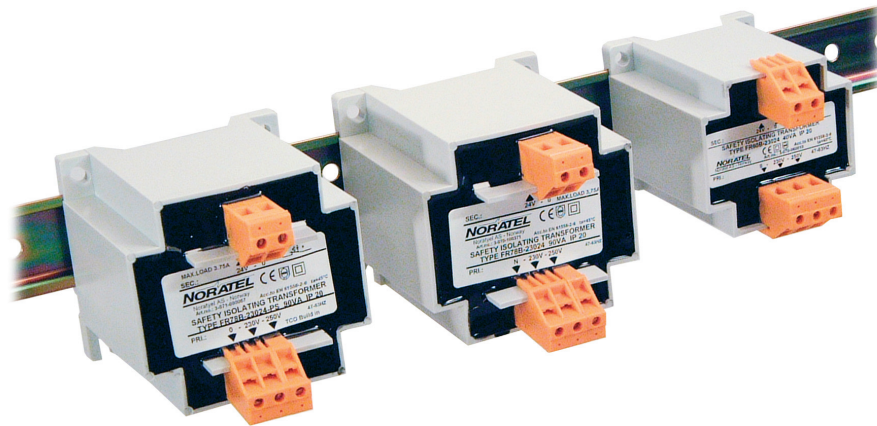


# Isolating-/Control transformer, IP20



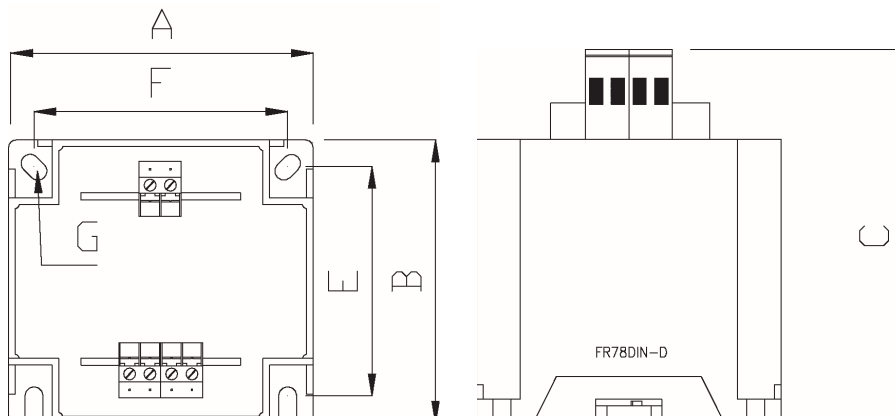
## Type FR

Encapsulated single-phase isolating transformer designed and tested according to EN61558-2-4. 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. Construction class II. FR60B, FR78B and FR84B models are supplied with integrated optional DIN-rail mounting system. Protected against involuntary contact, designed for cabinet or switchboard mounting.

## Applications:

Industrial isolating transformer designed for installation in processing industry, shipbuilding and switchboards. Suitable for installations which require protective separation between input and output. 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: 230-250V  
400-415-440V  
460-480-500V  
440-660-690V
- Frequency: 47-63Hz
- Output voltage: 115V  
230V
- According to: EN61558-2-4
- 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

Terminals designed for 4mm<sup>2</sup> or 10mm<sup>2</sup> conductors and maximum voltage 750V.

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

Type	Voltage Sec. (V)	Current Sec. (A)	Power (VA)	Art. no.
<b>230-250/115V</b>				
FR60B-230115	115	0,4	40	3-071-060020
FR78B-230115	115	0,8	90	3-071-078040
FR84B-230115	115	1,1	130	3-070-100390
<b>230-250/230V</b>				
FR60B-230230	230	0,2	40	3-071-060030
FR78B-230230	230	0,4	90	3-070-078030
FR84B-230230	230	0,6	130	3-070-100566
FR96B-230230	230	0,8	180	3-071-096120
FR96C-230230	230	1,1	250	3-071-096130
FR120B-230230	230	1,7	400	3-071-120040
<b>400-415-440/115V</b>				
FR60B-400115	115	0,4	40	3-071-060570
FR78B-400115	115	0,8	90	3-070-100676
FR84B-400115	115	1,1	130	3-070-100677
FR96B-400115	115	1,6	180	3-071-096010
FR96C-400115	115	2,2	250	3-070-100678
FR120B-400115	115	3,5	400	3-070-100679
<b>400-415-440/230V</b>				
FR60B-400230	230	0,2	40	3-070-060020
FR78B-400230	230	0,4	90	3-070-100686
FR84B-400230	230	0,6	130	3-070-100687
FR96B-400230	230	0,8	180	3-070-100688
FR96C-400230	230	1,1	250	3-070-100689
FR120B-400230	230	1,7	400	3-070-100690
<b>460-480-500/230V</b>				
FR60B-460230	230	0,2	40	3-071-060560
FR78B-460230	230	0,4	90	3-071-078510
FR84B-460230	230	0,6	130	3-071-084020
FR96B-460230	230	0,8	180	3-071-096270
FR96C-460230	230	1,1	250	3-071-096090
FR120B-460230	230	1,7	400	3-071-120055
<b>440-660-690/230V</b>				
FR60B-660230	230	0,2	40	3-070-060030
FR78B-660230	230	0,4	90	3-070-078020
FR84B-660230	230	0,6	130	3-070-084010
FR96C-660230	230	1,1	250	3-071-096040
FR120B-660230	230	1,7	400	3-071-005900

## Wiring diagram

