



DU / SU Series

Power Isolation Transformers

Industrial Grade Step-Up or Step-Down Transformers

Signal's DU and SU transformers have been designed to provide a multitude of step-up or step-down voltage configurations to accommodate various input voltages available throughout the world.

General Specifications



- Power - 250 VA to 10 KVA
(500 VA to 20 KVA possible if used as auto-transformer)
- Dielectric Strength - 2500 Vrms Hipot
- Primaries - Dual/tapped primaries:
 - Parallel connected (104 V, 110 V, 120 V - 50-500 Hz)
 - Series connected (208 V, 220 V, 230 V, 240 V)
- Secondaries - Dual/tapped secondaries:
 - DU Series:
 - Parallel connected (104 V, 110 V, 120 V / 50-500 Hz)
 - Series connected (208 V, 220 V, 230 V, 240 V / 50-500 Hz)
 - SU Series:
 - Parallel connected (208 V, 220 V, 240 V / 50-500 Hz)
 - Series connected (416 V, 440 V, 460 V, 480 V / 50-500 Hz)
- Electrostatic Shield - Solid copper foil connected to ground.
The connection may be opened if an un-grounded shield is desired.
- Terminals - Nickel plated brass screw-type terminals
- Insulation System - Class B, 130° C
- Higher insulation classes available
- DU-1, DU-2 and DU-3 are UL 5085-1, UL 5085-2 for construction, spacing and insulation system

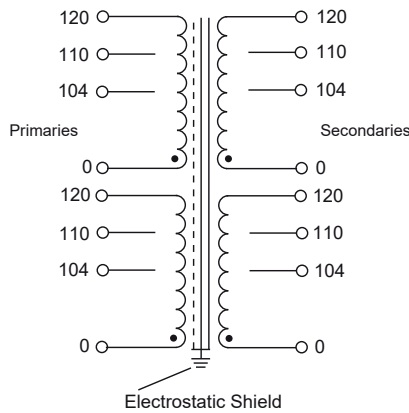
DU / SU Series Datasheet

Part Number Selection

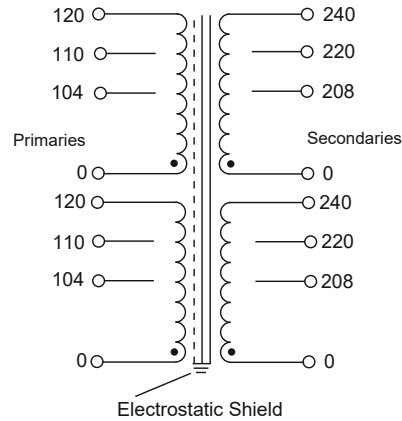
| Part Number | KVA | Series Secondaries | | Parallel Secondaries | |
|-------------|-----|--------------------|----------|----------------------|----------|
| | | Volts | Max Amps | Volts | Max Amps |
| DU-1/4 | 1/4 | 0/208/220/240 | 1.1 | 0/104/110/120 | 2.2 |
| DU-1/2 | 1/2 | 0/208/220/240 | 2.3 | 0/104/110/120 | 4.6 |
| DU-1 * | 1 | 0/208/220/240 | 4.5 | 0/104/110/120 | 9 |
| DU-2 * | 2 | 0/208/220/240 | 9 | 0/104/110/120 | 18 |
| DU-3 * | 3 | 0/208/220/240 | 14 | 0/104/110/120 | 28 |
| DU-5 | 5 | 0/208/220/240 | 23 | 0/104/110/120 | 46 |
| DU-7.5 | 7.5 | 0/208/220/240 | 31 | 0/104/110/120 | 62 |
| DU-10 | 10 | 0/208/220/240 | 41 | 0/104/110/120 | 82 |

| Part Number | KVA | Series Secondaries | | Parallel Secondaries | |
|-------------|-----|--------------------|----------|----------------------|----------|
| | | Volts | Max Amps | Volts | Max Amps |
| SU-1/4 | 1/4 | 0/416/440/480 | 0.55 | 0/208/220/240 | 1.1 |
| SU-1/2 | 1/2 | 0/416/440/480 | 1.15 | 0/208/220/240 | 2.3 |
| SU-1 | 1 | 0/416/440/480 | 2.25 | 0/208/220/240 | 4.5 |
| SU-2 | 2 | 0/416/440/480 | 4.5 | 0/208/220/240 | 9 |
| SU-3 | 3 | 0/416/440/480 | 7 | 0/208/220/240 | 14 |
| SU-5 | 5 | 0/416/440/480 | 11.5 | 0/208/220/240 | 23 |
| SU-7.5 | 7.5 | 0/416/440/480 | 15.5 | 0/208/220/240 | 31 |
| SU-10 | 10 | 0/416/440/480 | 20.5 | 0/208/220/240 | 41 |

DU Transformer



SU Transformer



As shown on the schematic diagram the DU line incorporates dual primaries and secondaries. All four windings are identically rated at 0/104/110/120 V. This permits series or parallel connections on either primary or secondary. Therefore, a nominal 110 V to 110 V, 220 V to 220 V, 110 V to 220 V, or 220 V to 110 V transformer can be configured. The winding tap permits intermediate series ratings such as 208 V, 214 V, or 230 V. It is also possible to make auto-transformer connections by connecting a primary group in series with a secondary group. Such nominal ratings as 440 V to 220 V or 220 V to 440 V can be configured in addition to the standard ratings described above. A further advantage to auto-transformer connection is the fact that the kVA rating of a particular type is doubled.

* USR component transformer evaluated to the standard for General Purpose transformers, UL 5085-1, UL 5085-2 for construction, spacing and insulation system. Provided with a Class 105 insulation system. Transformers are intended for use in end-product equipment.



Custom versions available upon request.



128 Atlantic Avenue, Lynbrook, NY 11563
Toll Free 866-239-5777 | Tel 516-239-5777 | Fax 516-239-7208
sales@signaltransformer.com | techhelp@signaltransformer.com

belfuse.com/signal

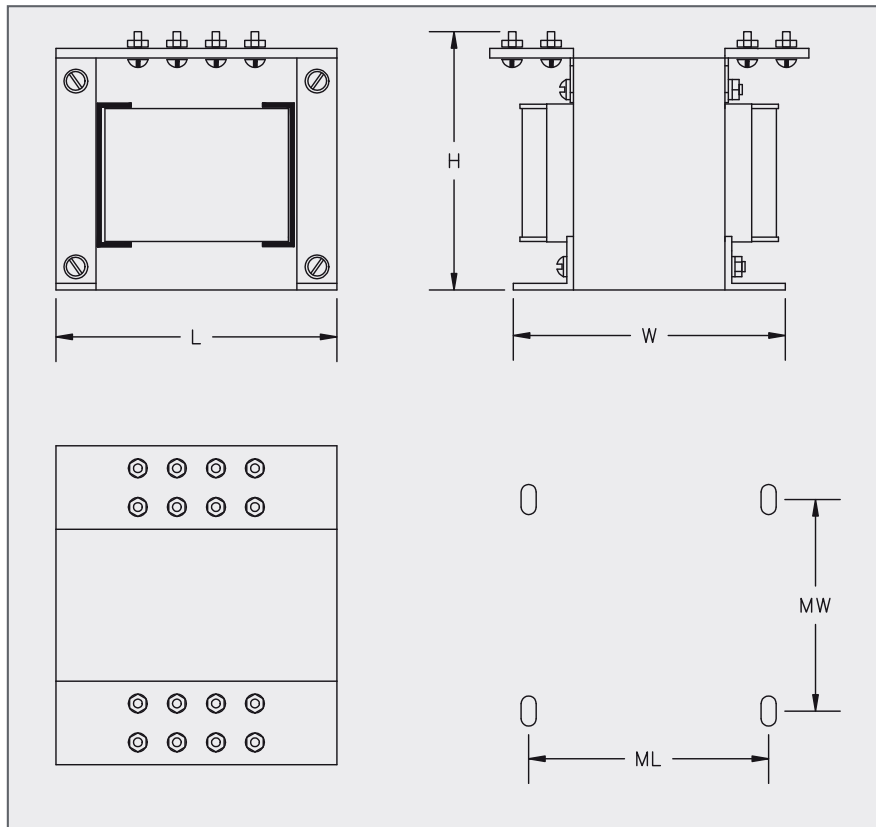
Mechanical Specifications

| Part Number | | Dimensions | | | | | Mtg. & Term. Screw | Weight |
|-------------|--------|--------------|---------------|--------------|--------------|--------------|--------------------|-------------|
| | | L * | W * | H * | ML • | MW ‡ | | |
| | | Inches (mm) | | | | | | lbs (kg) |
| DU-1/4 | SU-1/4 | 5.31 (134.9) | 4.25 (107.9) | 5.25 (133.4) | 4.37 (111.1) | 2.50 (63.5) | #10 | 12 (5.44) |
| DU-1/2 | SU-1/2 | 5.31 (134.9) | 5.31 (134.9) | 5.25 (133.4) | 4.37 (111.1) | 3.62 (92.1) | #10 | 18 (8.16) |
| DU-1 | SU-1 | 7.56 (192.1) | 6.25 (158.8) | 7.37 (187.3) | 6.75 (171.5) | 4.12 (104.8) | 1/4 | 33 (14.97) |
| DU-2 | SU-2 | 7.56 (192.1) | 8.25 (209.6) | 7.37 (187.3) | 6.75 (171.5) | 6.00 (152.4) | 1/4 | 56 (25.40) |
| DU-3 | SU-3 | 7.56 (192.1) | 9.25 (234.9) | 7.37 (187.3) | 6.75 (171.5) | 7.00 (177.8) | 1/4 | 70 (31.75) |
| DU-5 | SU-5 | 7.56 (192.1) | 10.75 (273.1) | 7.37 (187.3) | 6.75 (171.5) | 8.50 (215.9) | 1/4 | 89 (40.37) |
| DU-7.5 | SU-7.5 | 9.00 (228.6) | 10.75 (273.1) | 8.00 (203.2) | 7.50 (190.5) | 6.50 (165.1) | 1/4 | 105 (47.63) |
| DU-10 | SU-10 | 9.00 (228.6) | 13.00 (330.2) | 8.00 (203.2) | 7.50 (190.5) | 9.00 (228.6) | 1/4 | 150 (68.04) |

* Maximum

• ± 0.06 (1.6 mm)

‡ ± 0.12 (3.2 mm)



Custom versions available upon request.



128 Atlantic Avenue, Lynbrook, NY 11563
 Toll Free 866-239-5777 | Tel 516-239-5777 | Fax 516-239-7208
 sales@signaltransformer.com | techhelp@signaltransformer.com

belfuse.com/signal

Mouser Electronics

Authorized Distributor

Click to View Pricing, Inventory, Delivery & Lifecycle Information:

[Bel:](#)

[DU-5](#) [DU-2](#) [DU-1/2](#) [DU-3](#) [SU-5](#) [DU-1/4](#) [SU-3](#) [SU-1/4](#) [SU-10](#) [SU-1/2](#) [SU-2](#) [SU-7.5](#) [SU-1](#) [DU-10](#) [DU-1](#) [DU-7.5](#)