



# 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

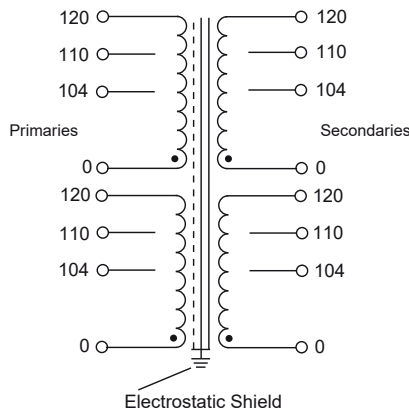
# DU / SU Series Datasheet

## Part Number Selection

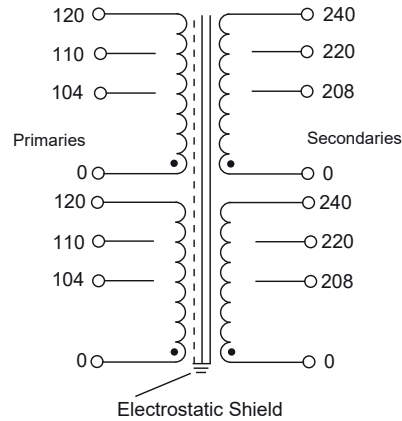
Part Number	KVA	Series Secondaries		Parallel Secondaries	
		Volts	Max Amps	Volts	Max Amps
DU-1/4	1/4	0/208/220/240	1.1	0/104/110/120	2.2
DU-1/2	1/2	0/208/220/240	2.3	0/104/110/120	4.6
DU-1 *	1	0/208/220/240	4.5	0/104/110/120	9
DU-2 *	2	0/208/220/240	9	0/104/110/120	18
DU-3 *	3	0/208/220/240	14	0/104/110/120	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.



500 Bayview Avenue, Inwood, NY 11096  
Toll Free 866-239-5777 | Tel 516-239-5777 | Fax 516-239-7208  
sales@signaltransformer.com | techhelp@signaltransformer.com

[belfuse.com/signal](http://belfuse.com/signal)

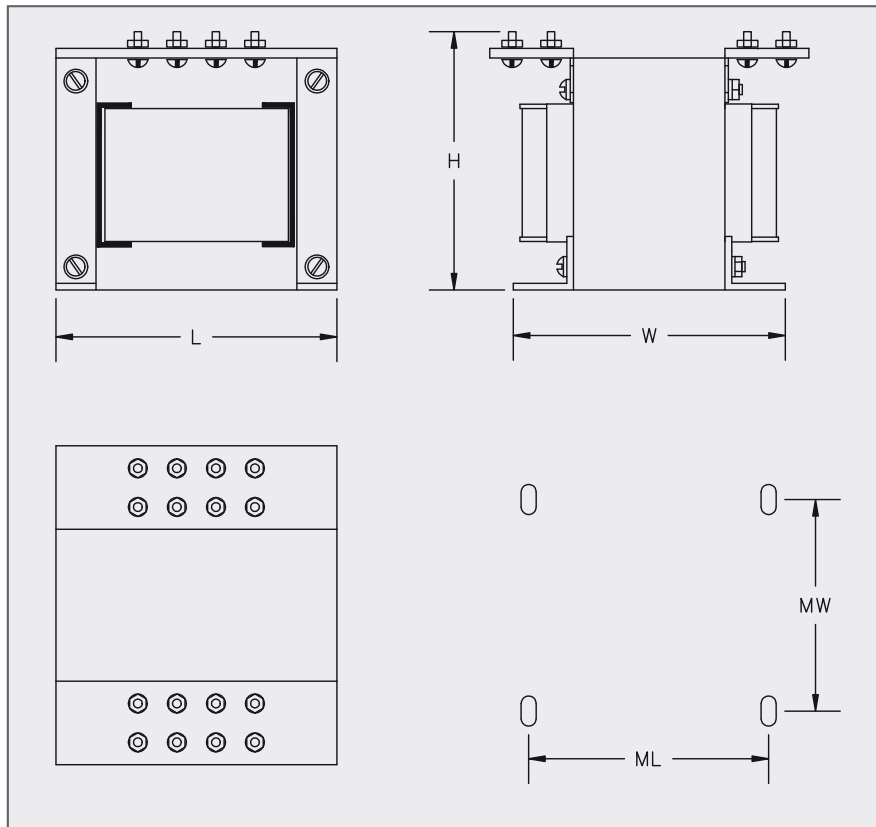
## Mechanical Specifications

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

•  $\pm 0.06$  (1.6 mm)

‡  $\pm 0.12$  (3.2 mm)



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