

Single Phase - General Purpose

Single Phase Ventilated:

Series 35: .050 kVA - .750 kVA – Series 80: 1.0 kVA - 5.0 kVA

Features



- **Series 35 has a UL Class 105°C insulation system**
- **Series 80 has a UL Class 180°C insulation system**
- **NEMA Type 3R**, wall mount enclosure suitable for indoor or outdoor use.
- **Multiple knockouts** provide convenient conduit entry and exit locations through the front access wiring compartment.
- **Ground studs** provided for bonding compatibility with both metallic and nonmetallic conduit.



Single Phase Encapsulated:

Series 85 ISO-Shield: .250 kVA - 25 kVA

Features



- **Electrostatic shield** between primary and secondary windings.
- **Epoxy-silica encapsulated** core and coil provides a transformer particularly well suited for harsh commercial and industrial applications.
- **UL Class 180°C insulation system**
- **NEMA Type 3R**
- **Multiple knockouts** provide convenient conduit entry.
- **Ground studs** provided for bonding compatibility.



Single Phase Ventilated Cabinet Style:

Series 61 and 41 ISO-Shield: 7.5 kVA - 100 kVA

Features



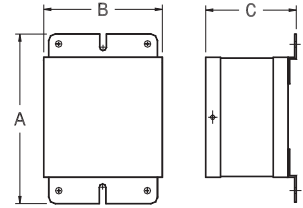
- **Electrostatic shield** between primary and secondary windings
- **Aluminum windings**
- **UL Class 220°C insulation system**
- **NEMA Type 3R**, ventilated, cabinet style, indoor.
- **No extra rainshields required for outdoor use.**
- **Vibration dampening pads** provide quiet operation.
- **Ground studs** provided for bonding compatibility.



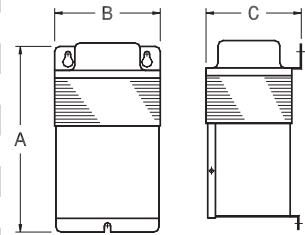
Single Phase - General Purpose

Primary Volts 240 X 480
Secondary Volts 120 / 240

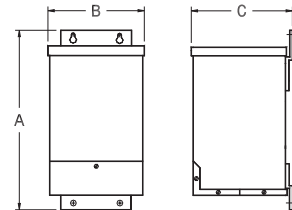
| General Information | | | | Winding Specifications | | | | Dimensions | | | |
|---------------------|----------------|-------|----------|------------------------|--------------|-------------|------------------|------------|---------|---------|--------------|
| kVA Cap. | Catalog Number | Hz. | Wgt. Lbs | Taps | Maximum Amps | | Conn Dia. Pg. 12 | Height A | Width B | Depth C | Outline Dwg. |
| | | | | | Pri. | Sec. | | | | | |
| .050 | 35-1005 | 50/60 | 3.3 | 0 | .2 / .1 | .4 / .2 | 1 | 6.37 | 3.75 | 3.37 | 1 |
| .100 | 35-1010 | 50/60 | 5 | 0 | .4 / .2 | .8 / .4 | 1 | 6.37 | 3.75 | 3.37 | 1 |
| .150 | 35-1015 | 50/60 | 7 | 0 | .6 / .3 | 1.2 / .6 | 1 | 7.00 | 4.00 | 3.63 | 2 |
| .250 | 85-1020SH | 50/60 | 14 | 0 | 1.0 / .52 | 2.0 / 1.0 | 4 | 12.00 | 4.87 | 5.25 | 3 |
| .500 | 85-1025SH | 50/60 | 18 | 0 | 2.0 / 1.0 | 4.1 / 2.0 | 4 | 12.00 | 4.87 | 5.25 | 3 |
| .750 | 85-1030SH | 50/60 | 22 | 0 | 3.1 / 1.6 | 6.2 / 3.1 | 4 | 12.00 | 4.87 | 5.25 | 3 |
| 1.0 | 85-1035SH | 60 | 29 | 0 | 4.1 / 2.0 | 8.3 / 4.1 | 4 | 15.25 | 5.75 | 5.87 | 3 |
| 1.5 | 85-1040SH | 60 | 37 | 0 | 6.2 / 3.1 | 12.5 / 6.2 | 4 | 15.25 | 5.75 | 5.87 | 3 |
| 2.0 | 85-1045SH | 60 | 42 | 0 | 8.3 / 4.1 | 16.6 / 8.3 | 4 | 15.25 | 5.75 | 5.87 | 3 |
| 3.0 | 85-1050SH | 60 | 62 | 0 | 12.5 / 6.2 | 25.0 / 12.5 | 4 | 15.25 | 8.25 | 7.87 | 3 |
| 3.0 | 85-1450SH | 60 | 62 | 4 | 12.5 / 6.2 | 25.0 / 12.5 | 2 | 15.25 | 8.25 | 7.8 | 3 |
| 5.0 | 85-1055SH | 60 | 102 | 0 | 20.8 / 10.4 | 41.6 / 20.8 | 4 | 15.25 | 8.25 | 7.87 | 3 |
| 5.0 | 85-1455SH | 60 | 102 | 4 | 20.8 / 10.4 | 41.6 / 20.8 | 2 | 15.25 | 8.25 | 7.87 | 3 |
| 7.5 | 85-1060SH | 60 | 131 | 0 | 31 / 15.6 | 62 / 31 | 4 | 15.75 | 14.25 | 8.75 | 4 |
| 7.5 | 85-1460SH | 60 | 131 | 4 | 31 / 15.6 | 62 / 31 | 2 | 15.75 | 14.25 | 8.75 | 4 |
| 10 | 85-1065SH | 60 | 152 | 0 | 41 / 20 | 83 / 41 | 4 | 15.75 | 14.25 | 8.75 | 4 |
| 10 | 85-1465SH | 60 | 152 | 4 | 41 / 20 | 83 / 41 | 2 | 15.75 | 14.25 | 8.75 | 4 |
| 15 | 85-1070SH | 60 | 270 | 0 | 62 / 31 | 125 / 62 | 4 | 19.38 | 17.56 | 11.50 | 4 |
| 15 | 85-1470SH | 60 | 270 | 4 | 62 / 31 | 125 / 62 | 2 | 19.38 | 17.56 | 11.50 | 4 |
| 25 | 85-1075SH | 60 | 300 | 0 | 104 / 52 | 208 / 104 | 4 | 19.38 | 17.56 | 11.50 | 4 |
| 25 | 85-1475SH | 60 | 300 | 4 | 104 / 52 | 208 / 104 | 2 | 19.38 | 17.56 | 11.50 | 4 |



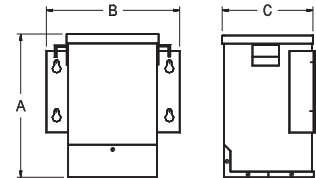
Outline Drawing 1
Wall Mount - Ventilated - NEMA Type 1



Outline Drawing 2
Wall Mount - Ventilated - NEMA Type 3R



Outline Drawing 3
Wall Mount - Encapsulated - NEMA Type 3R
Note: 3 kVA & 5kVA 85 Series are also available in Outline Drawing 4 Configuration



Outline Drawing 4
Wall Mount - Encapsulated - NEMA Type 3R

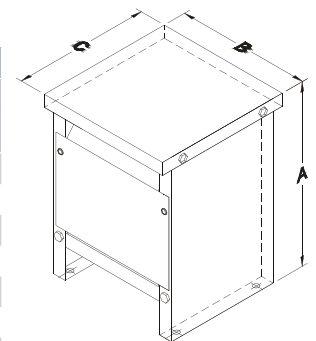
Floor Mount, Cabinet Style Enclosure

| 7.5 | 61-1460SH | 60 | 125 | 4 | 31 / 15.6 | 62 / 31 | 2 | 22.00 | 16.00 | 16.50 | 5 |
|----------------------------------|------------|----|-----|---|-----------|-----------|---|-------|-------|-------|---|
| 10 | 61-1465SH | 60 | 133 | 4 | 41 / 20 | 83 / 41 | 2 | 22.00 | 16.00 | 16.50 | 5 |
| Cabinet Style DOE 2016 Compliant | | | | | | | | | | | |
| 15 | 41-1470SH* | 60 | 185 | 4 | 62 / 31 | 125 / 62 | 2 | 23.50 | 18.63 | 18.50 | 5 |
| 25 | 41-1475SH* | 60 | 281 | 4 | 104 / 52 | 208 / 104 | 2 | 30.13 | 21.63 | 19.50 | 5 |
| 37.5 | 41-1680SH* | 60 | 384 | 6 | 156 / 78 | 312 / 156 | 3 | 32.00 | 27.00 | 26.25 | 5 |
| 50 | 41-1685SH* | 60 | 445 | 6 | 208 / 104 | 416 / 208 | 3 | 32.00 | 27.00 | 26.25 | 5 |
| 75 | 41-1690SH* | 60 | 663 | 6 | 312 / 156 | 625 / 312 | 3 | 41.00 | 34.00 | 26.75 | 5 |
| 100 | 41-1695SH* | 60 | 732 | 6 | 416 / 208 | 833 / 416 | 3 | 41.00 | 34.00 | 26.75 | 5 |

* Meets DOE requirements

Primary Volts 240 X 480
Secondary Volts 120 - Fused

| General Information | | | | Winding Specifications | | | | Dimensions | | | |
|---------------------|----------------|-------|----------|------------------------|--------------|------|------------------|------------|---------|---------|---------------------|
| kVA Cap. | Catalog Number | Hz. | Wgt. Lbs | Taps | Maximum Amps | | Conn Dia. Pg. 13 | Height A | Width B | Depth C | Outline Dwg. Pg. 24 |
| | | | | | Pri. | Sec. | | | | | |
| .100 | 35-2010 | 50/60 | 5 | 0 | .4 / .2 | .8 | 11 | 6.37 | 3.75 | 3.38 | 6 |
| .150 | 35-2015 | 50/60 | 7 | 0 | .6 / .3 | 1.2 | 11 | 7.00 | 4.00 | 3.63 | 7 |
| .250 | 35-2020 | 50/60 | 11 | 0 | 1.0 / .52 | 2.0 | 11 | 7.50 | 4.50 | 4.00 | 7 |
| .500 | 35-2025 | 50/60 | 20 | 0 | 2.0 / 1.0 | 4.1 | 11 | 9.16 | 5.38 | 4.56 | 7 |
| .750 | 35-2030 | 50/60 | 29 | 0 | 3.1 / 1.6 | 6.2 | 11 | 10.75 | 5.50 | 4.75 | 7 |
| 1.0 | 80-2035 | 50/60 | 29 | 0 | 4.1 / 2.0 | 8.3 | 11 | 10.88 | 5.50 | 4.75 | 7 |
| 1.5 | 80-2040 | 50/60 | 37 | 0 | 6.2 / 3.1 | 12.5 | 11 | 10.19 | 6.50 | 5.66 | 7 |

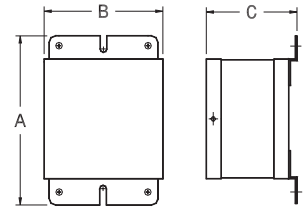


Outline Drawing 5
Floor Mount - Ventilated - NEMA Type 3R

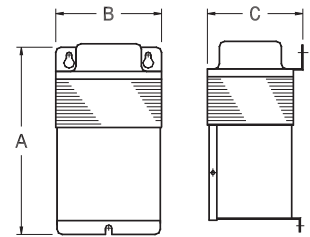
Single Phase - General Purpose

Primary Volts 208, Secondary Volts 120 / 240

| General Information | | | | Winding Specifications | | | | Dimensions | | | |
|----------------------------------|----------------|-------|----------|------------------------|-------------|-------------|------------------|------------|---------|---------|--------------|
| kVA Cap | Catalog Number | Hz | Wgt. Lbs | Taps | Maximum Amp | | Conn Dia. Pg. 12 | Height A | Width B | Depth C | Outline Dwg. |
| | | | | | Pri | Sec. | | | | | |
| .100 | 35-3010 | 50/60 | 5 | 0 | .4 | .8 / .4 | 5 | 6.37 | 3.75 | 3.37 | 1 |
| .150 | 35-3015 | 50/60 | 7 | 0 | .7 | 1.2 / .6 | 5 | 7.00 | 4.00 | 3.63 | 2 |
| .250 | 85-3020SH | 50/60 | 15 | 0 | 1.2 | 2.0 / 1.0 | 6 | 12.00 | 4.87 | 5.25 | 3 |
| .500 | 85-3025SH | 50/60 | 18 | 0 | 2.4 | 4.1 / 2.0 | 6 | 12.00 | 4.87 | 5.25 | 3 |
| .750 | 85-3030SH | 50/60 | 22 | 0 | 3.6 | 6.2 / 3.1 | 6 | 12.00 | 4.87 | 5.25 | 3 |
| 1.0 | 85-3035SH | 60 | 29 | 0 | 4.8 | 8.3 / 4.1 | 6 | 15.25 | 5.75 | 5.87 | 3 |
| 1.5 | 85-3040SH | 60 | 37 | 0 | 7.2 | 12.5 / 6.2 | 6 | 15.25 | 5.75 | 5.87 | 3 |
| 2.0 | 85-3045SH | 60 | 44 | 0 | 9.6 | 16.6 / 8.3 | 6 | 15.25 | 5.75 | 5.87 | 3 |
| 3.0 | 85-3050SH | 60 | 62 | 0 | 14.4 | 25.0 / 12.5 | 6 | 15.25 | 8.25 | 7.87 | 3 |
| 5.0 | 85-3055SH | 60 | 89 | 0 | 24.0 | 41.6 / 20.8 | 6 | 15.25 | 8.25 | 7.87 | 3 |
| 7.5 | 85-3060SH | 60 | 150 | 0 | 36 | 62 / 31 | 6 | 15.75 | 14.25 | 8.75 | 4 |
| 10 | 85-3065SH | 60 | 165 | 0 | 48 | 83 / 41 | 6 | 15.75 | 14.25 | 8.75 | 4 |
| 15 | 85-3070SH | 60 | 270 | 0 | 72 | 125 / 62 | 6 | 19.38 | 17.56 | 11.50 | 4 |
| 25 | 85-3075SH | 60 | 300 | 0 | 120 | 208 / 104 | 6 | 19.38 | 17.56 | 11.50 | 4 |
| Cabinet Style DOE 2016 Compliant | | | | | | | | | | | |
| 15 | 41-3470SH* | 60 | 150 | 4 | 72 | 125 / 62 | 7 | 23.50 | 18.63 | 18.50 | 5 |
| 25 | 41-3475SH* | 60 | 232 | 4 | 120 | 208 / 104 | 7 | 30.13 | 21.63 | 19.50 | 5 |



Outline Drawing 1
Wall Mount - Ventilated - NEMA Type 1

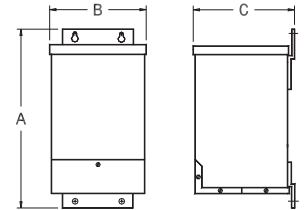


Outline Drawing 2
Wall Mount - Ventilated - NEMA Type 3R

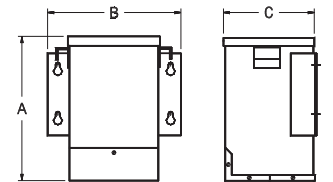
* Meets DOE requirements

Primary Volts 277, Secondary Volts 120 / 240

| General Information | | | | Winding Specifications | | | | Dimensions | | | |
|----------------------------------|----------------|-------|----------|------------------------|--------------|-------------|------------------|------------|---------|---------|--------------|
| kVA Cap | Catalog Number | Hz | Wgt. Lbs | Taps | Maximum Amps | | Conn Dia. Pg. 13 | Height A | Width B | Depth C | Outline Dwg. |
| | | | | | Pri | Sec | | | | | |
| .100 | 35-4010 | 50/60 | 5 | 0 | .3 | .8 / .4 | 8 | 6.37 | 3.75 | 3.37 | 1 |
| .150 | 35-4015 | 50/60 | 7 | 0 | .5 | 1.2 / .6 | 8 | 7.00 | 4.00 | 3.63 | 2 |
| .250 | 85-4020SH | 50/60 | 15 | 0 | .9 | 2.0 / 1.0 | 9 | 12.00 | 4.87 | 5.25 | 3 |
| .500 | 85-4025SH | 50/60 | 18 | 0 | 1.8 | 4.1 / 2.0 | 9 | 12.00 | 4.87 | 5.25 | 3 |
| .750 | 85-4030SH | 50/60 | 22 | 0 | 2.7 | 6.2 / 3.1 | 9 | 12.00 | 4.87 | 5.25 | 3 |
| 1.0 | 85-4035SH | 60 | 29 | 0 | 3.6 | 8.3 / 4.1 | 9 | 15.25 | 5.75 | 5.87 | 3 |
| 1.5 | 85-4040SH | 60 | 37 | 0 | 5.4 | 12.5 / 6.2 | 9 | 15.25 | 5.75 | 5.87 | 3 |
| 2.0 | 85-4045SH | 60 | 44 | 0 | 7.2 | 16.6 / 8.3 | 9 | 15.25 | 5.75 | 5.87 | 3 |
| 3.0 | 85-4050SH | 60 | 62 | 0 | 10.8 | 25.0 / 12.5 | 9 | 15.25 | 8.25 | 7.87 | 3 |
| 5.0 | 85-4055SH | 60 | 89 | 0 | 18 | 41.6 / 20.8 | 9 | 15.25 | 8.25 | 7.87 | 3 |
| 7.5 | 85-4060SH | 60 | 150 | 0 | 27 | 62 / 31 | 9 | 15.75 | 14.25 | 8.75 | 4 |
| 10 | 85-4065SH | 60 | 165 | 0 | 36 | 83 / 41 | 9 | 15.75 | 14.25 | 8.75 | 4 |
| 15 | 85-4070SH | 60 | 270 | 0 | 54 | 125 / 62 | 9 | 19.38 | 17.56 | 11.50 | 4 |
| 25 | 85-4075SH | 60 | 300 | 0 | 90 | 208 / 104 | 9 | 19.38 | 17.56 | 11.50 | 4 |
| Cabinet Style DOE 2016 Compliant | | | | | | | | | | | |
| 15 | 41-4470SH* | 60 | 150 | 4 | 54 | 125 / 62 | 10 | 23.50 | 18.63 | 18.50 | 5 |
| 25 | 41-4475SH* | 60 | 232 | 4 | 90 | 208 / 104 | 10 | 30.13 | 21.63 | 19.50 | 5 |

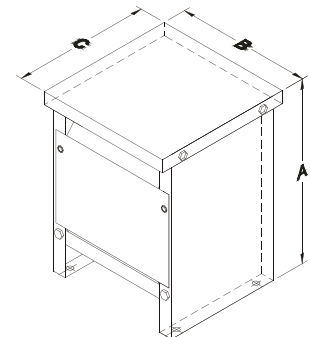


Outline Drawing 3
Wall Mount - Encapsulated - NEMA Type 3R Note: 3 kVA & 5kVA 85 Series are also available in Outline Drawing 4 Configuration



Outline Drawing 4
Wall Mount - Encapsulated - NEMA Type 3R

* Meets DOE requirements



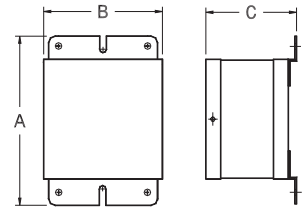
Outline Drawing 5
Floor Mount - Ventilated - NEMA Type 3R

Single Phase - General Purpose

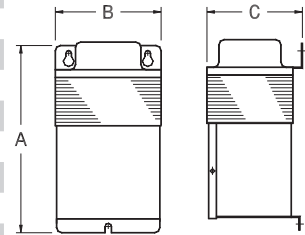
Primary Volts 600 Secondary Volts 120 / 240

| General Information | | | | Winding Specifications | | | | Dimensions | | | |
|----------------------------------|----------------|-------|----------|------------------------|--------------|-------------|------------------|------------|---------|---------|--------------|
| kVA Cap. | Catalog Number | Hz. | Wgt. Lbs | Taps | Maximum Amps | | Conn Dia. Pg. 14 | Height A | Width B | Depth C | Outline Dwg. |
| | | | | | Pri. | Sec. | | | | | |
| .100 | 35-5010 | 50/60 | 5 | 0 | .1 | .8 / .4 | 12 | 6.37 | 3.75 | 3.37 | 1 |
| .150 | 35-5015 | 50/60 | 7 | 0 | .2 | 1.2 / .6 | 12 | 7.00 | 4.00 | 3.63 | 2 |
| .250 | 85-5020SH | 50/60 | 15 | 0 | .4 | 2.0 / 1.0 | 13 | 12 | 4.87 | 5.25 | 3 |
| .500 | 85-5025SH | 50/60 | 18 | 0 | .8 | 4.1 / 2.0 | 13 | 12 | 4.87 | 5.25 | 3 |
| .750 | 85-5030SH | 50/60 | 22 | 0 | 1.2 | 6.2 / 3.1 | 13 | 12 | 4.87 | 5.25 | 3 |
| 1.0 | 85-5035SH | 60 | 29 | 0 | 1.6 | 8.3 / 4.1 | 13 | 15.25 | 5.75 | 5.87 | 3 |
| 1.5 | 85-5040SH | 60 | 37 | 0 | 2.5 | 12.5 / 6.2 | 13 | 15.25 | 5.75 | 5.87 | 3 |
| 2.0 | 85-5045SH | 60 | 44 | 0 | 3.3 | 16.6 / 8.3 | 13 | 15.25 | 5.75 | 5.87 | 3 |
| 3.0 | 85-5050SH | 60 | 62 | 0 | 5.0 | 25.0 / 12.5 | 13 | 15.25 | 8.25 | 7.87 | 3 |
| 5.0 | 85-5055SH | 60 | 89 | 0 | 8.3 | 41.6 / 20.8 | 13 | 15.25 | 8.25 | 7.87 | 3 |
| 7.5 | 85-5060SH | 60 | 150 | 0 | 12 | 62 / 31 | 13 | 15.75 | 14.25 | 8.75 | 4 |
| 10 | 85-5065SH | 60 | 165 | 0 | 16 | 83 / 41 | 13 | 15.75 | 14.25 | 8.75 | 4 |
| 15 | 85-5470SH | 60 | 150 | 4 | 25 | 125 / 62 | 14 | 19.38 | 17.56 | 11.50 | 4 |
| 25 | 85-5475SH | 60 | 232 | 4 | 41.6 | 208 / 104 | 14 | 19.38 | 17.56 | 11.50 | 4 |
| Cabinet Style DOE 2016 Compliant | | | | | | | | | | | |
| 15 | 41-5470SH* | 60 | 150 | 4 | 25 | 125 / 62 | 14 | 23.50 | 18.63 | 18.50 | 5 |
| 25 | 41-5475SH* | 60 | 232 | 4 | 41.6 | 208 / 104 | 14 | 30.13 | 21.63 | 19.50 | 5 |
| 37.5 | 41-5480SH* | 60 | 330 | 4 | 62 | 312 / 156 | 14 | 32.00 | 27.00 | 26.25 | 5 |
| 50 | 41-5485SH* | 60 | 359 | 4 | 83 | 416 / 208 | 14 | 32.00 | 27.00 | 26.25 | 5 |
| 75 | 41-5490SH* | 60 | 524 | 4 | 125 | 625 / 312 | 14 | 41.00 | 34.00 | 26.75 | 5 |
| 100 | 41-5495SH* | 60 | 648 | 4 | 166 | 833 / 416 | 14 | 41.00 | 34.00 | 26.75 | 5 |

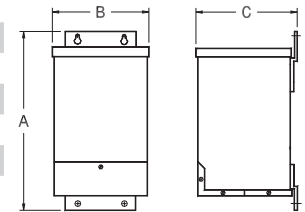
* Meets DOE requirements



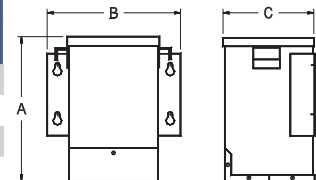
Outline Drawing 1
Wall Mount - Ventilated - NEMA Type 1



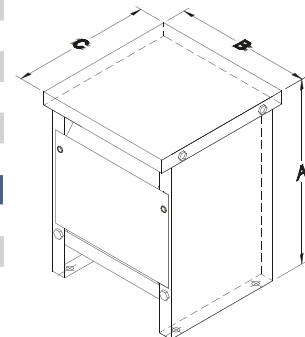
Outline Drawing 2
Wall Mount - Ventilated - NEMA Type 3R



Outline Drawing 3
Wall Mount - Encapsulated - NEMA Type 3R Note: 3 kVA & 5kVA 85 Series are also available in Outline Drawing 4 Configuration



Outline Drawing 4
Wall Mount - Encapsulated - NEMA Type 3R



Outline Drawing 5
Floor Mount - Ventilated - NEMA Type 3R

Primary Volts 120 / 240 Secondary Volts 120 / 240

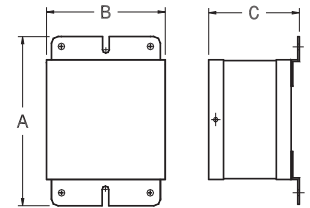
| General Information | | | | Winding Specifications | | | | Dimensions | | | |
|----------------------------------|----------------|-------|----------|------------------------|--------------|-------------|------------------|------------|---------|---------|--------------|
| kVA Cap. | Catalog Number | Hz. | Wgt. Lbs | Taps | Maximum Amps | | Conn Dia. Pg. 14 | Height A | Width B | Depth C | Outline Dwg. |
| | | | | | Pri. | Sec. | | | | | |
| .100 | 35-6010 | 50/60 | 5 | 0 | .8 / .4 | .8 / .4 | 15 | 6.37 | 3.75 | 3.37 | 1 |
| .150 | 35-6015 | 50/60 | 7 | 0 | 1.2 / .6 | 1.2 / .6 | 15 | 7.00 | 4.00 | 3.63 | 2 |
| .250 | 85-6020SH | 50/60 | 15 | 0 | 2.0 / 1.0 | 2.0 / 1.0 | 16 | 12 | 4.87 | 5.25 | 3 |
| .500 | 85-6025SH | 50/60 | 18 | 0 | 4.1 / 2.0 | 4.1 / 2.0 | 16 | 12 | 4.87 | 5.25 | 3 |
| .750 | 85-6030SH | 50/60 | 22 | 0 | 6.2 / 3.1 | 6.2 / 3.1 | 16 | 12 | 4.87 | 5.25 | 3 |
| 1.0 | 85-6035SH | 60 | 29 | 0 | 8.3 / 4.1 | 8.3 / 4.1 | 16 | 15.25 | 5.75 | 5.87 | 3 |
| 1.5 | 85-6040SH | 60 | 37 | 0 | 12.5 / 6.2 | 12.5 / 6.2 | 16 | 15.25 | 5.75 | 5.87 | 3 |
| 2.0 | 85-6045SH | 60 | 44 | 0 | 16.6 / 8.3 | 16.6 / 8.3 | 16 | 15.25 | 5.75 | 5.87 | 3 |
| 3.0 | 85-6050SH | 60 | 62 | 0 | 25.0 / 12.5 | 25.0 / 12.5 | 16 | 15.25 | 8.25 | 7.87 | 3 |
| 5.0 | 85-6055SH | 60 | 89 | 0 | 41.6 / 20.8 | 41.6 / 20.8 | 16 | 15.25 | 8.25 | 7.87 | 3 |
| 7.5 | 85-6060SH | 60 | 150 | 0 | 62 / 31 | 62 / 31 | 16 | 15.75 | 14.25 | 8.75 | 4 |
| 10 | 85-6065SH | 60 | 165 | 0 | 83 / 41 | 83 / 41 | 16 | 15.75 | 14.25 | 8.75 | 4 |
| Cabinet Style DOE 2016 Compliant | | | | | | | | | | | |
| 15 | 41-6470SH* | 60 | 150 | 4 | 125 / 62 | 125 / 62 | 17 | 23.50 | 18.63 | 18.50 | 5 |
| 25 | 41-6475SH* | 60 | 232 | 4 | 208 / 104 | 208 / 104 | 17 | 30.13 | 21.63 | 19.50 | 5 |

* Meets DOE requirements

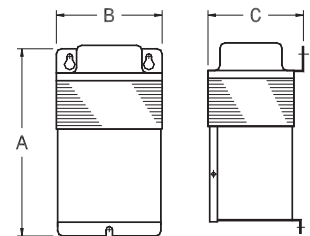
Single Phase - General Purpose Ventilated

Primary Volts 240 X 480 Secondary Volts 120 / 240

| General Information | | | | Winding Specifications | | | | Dimensions | | | |
|---------------------|----------------|-------|----------|------------------------|--------------|-------------|------------------|------------|---------|---------|--------------|
| kVA Cap. | Catalog Number | Hz. | Wgt. Lbs | Taps | Maximum Amps | | Conn Dia. Pg. 12 | Height A | Width B | Depth C | Outline Dwg. |
| | | | | | Pri. | Sec. | | | | | |
| .050 | 35-1005 | 50/60 | 3.3 | 0 | .2 / .1 | .4 / .2 | 1 | 6.37 | 3.75 | 3.37 | 1 |
| .100 | 35-1010 | 50/60 | 5 | 0 | .4 / .2 | .8 / .4 | 1 | 6.37 | 3.75 | 3.37 | 1 |
| .150 | 35-1015 | 50/60 | 7 | 0 | .6 / .3 | 1.2 / .6 | 1 | 7.00 | 4.00 | 3.63 | 2 |
| .250 | 35-1020 | 50/60 | 11 | 0 | 1.0 / .52 | 2.0 / 1.0 | 1 | 7.50 | 4.63 | 4.00 | 2 |
| .500 | 35-1025 | 50/60 | 20 | 0 | 2.0 / 1.0 | 4.1 / 2.0 | 1 | 9.25 | 5.50 | 4.75 | 2 |
| .750 | 35-1030 | 50/60 | 28 | 0 | 3.1 / 1.6 | 6.2 / 3.1 | 1 | 10.88 | 5.50 | 4.75 | 2 |
| 1.0 | 80-1035 | 50/60 | 29 | 0 | 4.1 / 2.0 | 8.3 / 4.1 | 1 | 10.88 | 5.50 | 4.75 | 2 |
| 1.5 | 80-1040 | 50/60 | 37 | 0 | 6.2 / 3.1 | 12.5 / 6.2 | 1 | 10.63 | 6.63 | 5.88 | 2 |
| 2.0 | 80-1045 | 60 | 41 | 0 | 8.3 / 4.1 | 16.6 / 8.3 | 1 | 11.00 | 6.63 | 5.88 | 2 |
| 3.0 | 80-1050 | 60 | 53 | 0 | 12.5 / 6.2 | 25.0 / 12.5 | 1 | 10.88 | 7.69 | 6.88 | 2 |
| 5.0 | 80-1055 | 60 | 77 | 0 | 20.8 / 10.4 | 41.6 / 20.8 | 1 | 13.69 | 7.69 | 6.88 | 2 |



Outline Drawing 1
Wall Mount - Ventilated - NEMA Type 1



Outline Drawing 2
Wall Mount - Ventilated - NEMA Type 3R

Primary Volts 208 Secondary Volts 120 / 240

| General Information | | | | Winding Specifications | | | | Dimensions | | | |
|---------------------|----------------|-------|----------|------------------------|--------------|------------|------------------|------------|---------|---------|--------------|
| kVA Cap. | Catalog Number | Hz. | Wgt. Lbs | Taps | Maximum Amps | | Conn Dia. Pg. 12 | Height A | Width B | Depth C | Outline Dwg. |
| | | | | | Pri. | Sec. | | | | | |
| .100 | 35-3010 | 50/60 | 5 | 0 | .4 | .8 / .4 | 5 | 6.37 | 3.75 | 3.37 | 1 |
| .150 | 35-3015 | 50/60 | 7 | 0 | .7 | 1.2 / .6 | 5 | 7.00 | 4.00 | 3.63 | 2 |
| .250 | 35-3020 | 50/60 | 11 | 0 | 1.2 | 2.0 / 1.0 | 5 | 7.50 | 4.63 | 4.00 | 2 |
| .500 | 35-3025 | 50/60 | 20 | 0 | 2.4 | 4.1 / 2.0 | 5 | 9.25 | 5.50 | 4.75 | 2 |
| .750 | 35-3030 | 50/60 | 28 | 0 | 3.6 | 6.2 / 3.1 | 5 | 10.88 | 5.50 | 4.75 | 2 |
| 1.0 | 80-3035 | 50/60 | 29 | 0 | 4.8 | 8.3 / 4.1 | 5 | 10.88 | 5.50 | 4.75 | 2 |
| 1.5 | 80-3040 | 50/60 | 37 | 0 | 7.2 | 12.5 / 6.2 | 5 | 10.63 | 6.63 | 5.88 | 2 |

Primary Volts 277 Secondary Volts 120 / 240

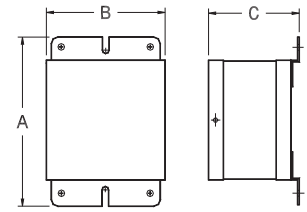
| General Information | | | | Winding Specifications | | | | Dimensions | | | |
|---------------------|----------------|-------|----------|------------------------|--------------|------------|------------------|------------|---------|---------|--------------|
| kVA Cap. | Catalog Number | Hz. | Wgt. Lbs | Taps | Maximum Amps | | Conn Dia. Pg. 13 | Height A | Width B | Depth C | Outline Dwg. |
| | | | | | Pri. | Sec. | | | | | |
| .100 | 35-4010 | 50/60 | 5 | 0 | .3 | .8 / .4 | 8 | 6.37 | 3.75 | 3.37 | 1 |
| .150 | 35-4015 | 50/60 | 7 | 0 | .5 | 1.2 / .6 | 8 | 7.00 | 4.00 | 3.63 | 2 |
| .250 | 35-4020 | 50/60 | 11 | 0 | .9 | 2.0 / 1.0 | 8 | 7.50 | 4.63 | 4.00 | 2 |
| .500 | 35-4025 | 50/60 | 20 | 0 | 1.8 | 4.1 / 2.0 | 8 | 9.25 | 5.50 | 4.75 | 2 |
| .750 | 35-4030 | 50/60 | 28 | 0 | 2.7 | 6.2 / 3.1 | 8 | 10.88 | 5.50 | 4.75 | 2 |
| 1.0 | 80-4035 | 50/60 | 29 | 0 | 3.6 | 8.3 / 4.1 | 8 | 10.88 | 5.50 | 4.75 | 2 |
| 1.5 | 80-4040 | 50/60 | 37 | 0 | 5.4 | 12.5 / 6.2 | 8 | 10.63 | 6.63 | 5.88 | 2 |

Single Phase - General Purpose Ventilated

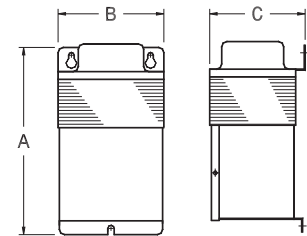
Primary Volts 600

Secondary Volts 120 / 240

| General Information | | | | Winding Specifications | | | | Dimensions | | | |
|---------------------|----------------|-------|----------|------------------------|--------------|----------|------------------|------------|---------|---------|--------------|
| kVA Cap. | Catalog Number | Hz. | Wgt. Lbs | Taps | Maximum Amps | | Conn Dia. Pg. 13 | Height A | Width B | Depth C | Outline Dwg. |
| | | | | | Pri. | Sec. | | | | | |
| .100 | 35-5010 | 50/60 | 5 | 0 | .1 | .8/.4 | 12 | 6.37 | 3.75 | 3.37 | 1 |
| .150 | 35-5015 | 50/60 | 7 | 0 | .2 | 1.2/.6 | 12 | 7.00 | 4.00 | 3.63 | 2 |
| .250 | 35-5020 | 50/60 | 11 | 0 | .4 | 2.0/1.0 | 12 | 7.50 | 4.63 | 4.00 | 2 |
| .500 | 35-5025 | 50/60 | 20 | 0 | .8 | 4.1/2.0 | 12 | 9.25 | 5.50 | 4.75 | 2 |
| .750 | 35-5030 | 50/60 | 28 | 0 | 1.2 | 6.2/3.1 | 12 | 10.88 | 5.50 | 4.75 | 2 |
| 1.0 | 80-5035 | 50/60 | 29 | 0 | 1.6 | 8.3/4.1 | 12 | 10.88 | 5.50 | 4.75 | 2 |
| 1.5 | 80-5040 | 50/60 | 37 | 0 | 2.5 | 12.5/6.2 | 12 | 10.63 | 6.63 | 5.88 | 2 |



Outline Drawing 1
Wall Mount - Ventilated - NEMA Type 1



Outline Drawing 2
Wall Mount - Ventilated - NEMA Type 3R

Primary Volts 120 / 240

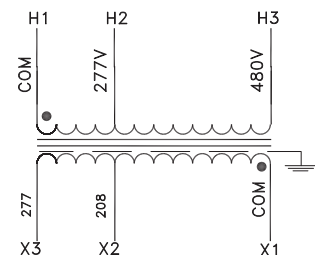
Secondary Volts 120 / 240

| General Information | | | | Winding Specifications | | | | Dimensions | | | |
|---------------------|----------------|-------|----------|------------------------|--------------|----------|------------------|------------|---------|---------|--------------|
| kVA Cap. | Catalog Number | Hz. | Wgt. Lbs | Taps | Maximum Amps | | Conn Dia. Pg. 14 | Height A | Width B | Depth C | Outline Dwg. |
| | | | | | Pri. | Sec. | | | | | |
| .100 | 35-6010 | 50/60 | 5 | 0 | .8/.4 | .8/.4 | 15 | 6.37 | 3.75 | 3.37 | 1 |
| .150 | 35-6015 | 50/60 | 7 | 0 | 1.2/.6 | 1.2/.6 | 15 | 7.00 | 4.00 | 3.63 | 2 |
| .250 | 35-6020 | 50/60 | 11 | 0 | 2.0/1.0 | 2.0/1.0 | 15 | 7.50 | 4.63 | 4.00 | 2 |
| .500 | 35-6025 | 50/60 | 20 | 0 | 4.1/2.0 | 4.1/2.0 | 15 | 9.25 | 5.50 | 4.75 | 2 |
| .750 | 35-6030 | 50/60 | 28 | 0 | 6.2/3.1 | 6.2/3.1 | 15 | 10.88 | 5.50 | 4.75 | 2 |
| 1.0 | 80-6035 | 50/60 | 29 | 0 | 8.3/4.1 | 8.3/4.1 | 15 | 10.88 | 5.50 | 4.75 | 2 |
| 1.5 | 80-6040 | 50/60 | 37 | 0 | 12.5/6.2 | 12.5/6.2 | 15 | 10.63 | 6.63 | 5.88 | 2 |

Primary volts 277/480

Secondary Volts 208/277

| General Information | | | | Winding Specifications | | | | Dimensions | | | |
|---------------------|----------------|-------|----------|------------------------|--------------|-----------|-----------------------------|------------|---------|---------|--------------|
| kVA Cap. | Catalog Number | Hz. | Wgt. Lbs | Taps | Maximum Amps | | Conn Dia. | Height A | Width B | Depth C | Outline Dwg. |
| | | | | | Pri. | Sec. | | | | | |
| 0.25 | 85-8020SH | 50/60 | 15 | 0 | 0.9/.52 | 1.20/0.9 | See. Dia. at Right | 12 | 4.87 | 5.25 | 3 |
| 0.5 | 85-8025SH | 50/60 | 18 | 0 | 1.8/1.04 | 2.4/1.8 | | 12 | 4.87 | 5.25 | 3 |
| 0.75 | 85-8030SH | 50/60 | 22 | 0 | 2.71/1.56 | 3.61/2.71 | | 12 | 4.87 | 5.25 | 3 |
| 1 | 85-8035SH | 60 | 29 | 0 | 3.61/2.08 | 4.81/3.61 | | 15.25 | 5.75 | 5.87 | 3 |
| 1.5 | 85-8040SH | 60 | 37 | 0 | 5.42/3.13 | 7.21/5.42 | | 15.25 | 5.75 | 5.87 | 3 |
| 2 | 85-8045SH | 60 | 44 | 0 | 7.22/4.17 | 9.62/7.22 | | 15.25 | 5.75 | 5.87 | 3 |
| 3 | 85-8050SH | 60 | 62 | 0 | 10.8/6.25 | 14.4/10.8 | | 15.25 | 8.25 | 7.87 | 3 |
| 5 | 85-8055SH | 60 | 89 | 0 | 18/10.42 | 24/18 | | 15.25 | 8.25 | 7.87 | 3 |
| 7.5 | 85-8060SH | 60 | 150 | 0 | 27/15.63 | 36.05/27 | | 15.75 | 14.25 | 8.75 | 4 |
| 10 | 85-8065SH | 60 | 165 | 0 | 36.1/20.83 | 48/36.1 | | 15.75 | 14.25 | 8.75 | 4 |
| 15 | 85-8070SH | 60 | 270 | 0 | 54.2/31.3 | 72.1/54.2 | | 19.38 | 17.56 | 11.5 | 4 |

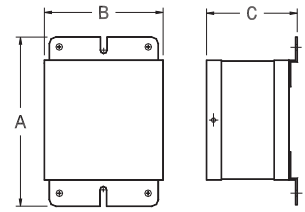


Single Phase - General Purpose Ventilated

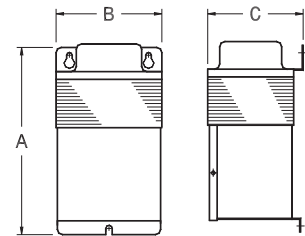
PRIMARY VOLTS 240 X 480

SECONDARY VOLTS 120/240 NEMA 4X 304 Stainless Steel

| General Information | | | | Winding Specifications | | | | Dimensions | | | |
|---------------------|----------------|-------|----------|------------------------|--------------|-----------|------------------|------------|---------|---------|--------------|
| kVA Cap. | Catalog Number | Hz. | Wgt. Lbs | Taps | Maximum Amps | | Conn Dia. Pg. 12 | Height A | Width B | Depth C | Outline Dwg. |
| | | | | | Pri. | Sec. | | | | | |
| 0.25 | FP4X-1020SH | 50/60 | 15 | 0 | 1.04/52 | 2.0/1.0 | 4 | 12 | 4.87 | 5.25 | 3 |
| 0.5 | FP4X-1025SH | 50/60 | 19 | 0 | 2.0/1.0 | 4.1/2.0 | 4 | 12 | 4.87 | 5.25 | 3 |
| 0.75 | FP4X-1030SH | 50/60 | 23 | 0 | 3.1/1.6 | 6.2/3.1 | 4 | 12 | 4.87 | 5.25 | 3 |
| 1 | FP4X-1035SH | 60 | 30 | 0 | 4.1/2.0 | 8.3/4.1 | 4 | 15.25 | 5.75 | 5.87 | 3 |
| 1.5 | FP4X-1040SH | 60 | 3 | 0 | 6.2/3.1 | 12.5/6.2 | 4 | 15.25 | 5.75 | 5.87 | 3 |
| 2 | FP4X-1045SH | 60 | 43 | 0 | 8.3/4.1 | 16.6/8.3 | 4 | 15.25 | 5.75 | 5.87 | 3 |
| 3 | FP4X-1050SH | 60 | 64 | 0 | 12.5/6.2 | 25/12.5 | 4 | 15.25 | 8.25 | 7.87 | 3 |
| 5 | FP4X-1055SH | 60 | 103 | 0 | 20.8/10.4 | 41.6/20.8 | 4 | 15.25 | 8.25 | 7.87 | 3 |
| 7.5 | FP4X-1060SH | 60 | 132 | 0 | 31/15.6 | 62/31 | 4 | 15.75 | 14.25 | 8.75 | 4 |
| 10 | FP4X-1065SH | 60 | 154 | 0 | 41/20 | 83/41 | 4 | 15.75 | 14.25 | 8.75 | 4 |
| 25 | FP4X-1070SH | 60 | 280 | 0 | 62/31 | 125/62 | 4 | 19.38 | 17.56 | 11.5 | 4 |



Outline Drawing 1
Wall Mount - Ventilated - NEMA Type 1



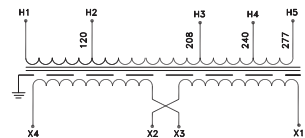
Outline Drawing 2
Wall Mount - Ventilated - NEMA Type 3R

316 stainless available as special order

PRIMARY VOLTS 120/208/240/277

SECONDARY VOLTS 120/240

| General Information | | | | Winding Specifications | | | | Dimensions | | | |
|---------------------|----------------|-----|----------|------------------------|--------------|-----------|----------------------------|------------|---------|---------|--------------|
| kVA Cap. | Catalog Number | Hz. | Wgt. Lbs | Taps | Maximum Amps | | Conn Dia. | Height A | Width B | Depth C | Outline Dwg. |
| | | | | | Pri. | Sec. | | | | | |
| 1.00 | 85-1-2915SH | 60 | 23 | 0 | 8.3/3.6 | 8.3/4.1 | See Dia. at Right | 15.25 | 5.75 | 5.87 | 3 |
| 1.50 | 85-1.5-2915SH | 60 | 30 | 0 | 12.5/5.4 | 12.5/6.3 | | 15.25 | 5.75 | 5.87 | 3 |
| 2.00 | 85-2-2915SH | 60 | 37 | 0 | 16.7/7.2 | 16.7/8.3 | | 15.25 | 5.75 | 5.87 | 3 |
| 3.00 | 85-3-2915SH | 60 | 55 | 0 | 25/10.8 | 25/12.5 | | 15.25 | 8.25 | 7.87 | 3 |
| 5.00 | 85-5-2915SH | 60 | 75 | 0 | 41.7/18 | 41.7/20.8 | | 15.25 | 8.25 | 7.87 | 3 |
| 7.50 | 85-7.5-2915SH | 60 | 105 | 0 | 62.5/27 | 62.5/31.3 | | 15.75 | 14.25 | 8.75 | 4 |
| 10.00 | 85-10-2915SH | 60 | 124 | 0 | 83.3/37 | 83.3/41.7 | | 15.75 | 14.25 | 8.75 | 4 |
| 15.00 | 85-15-2915SH | 60 | 170 | 0 | 125/54.1 | 125/62.5 | | 19.38 | 17.56 | 11.5 | 4 |

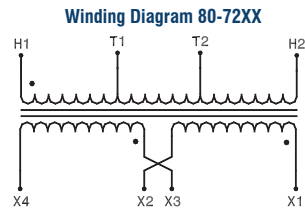


Primary Volts 480,

Secondary Volts 120 / 240

With 2 - 5% FCBN Taps

| General Information | | | | Winding Specifications | | | | Dimensions | | | |
|---------------------|----------------|-------|----------|------------------------|--------------|-------------|-------------------------------------|------------|---------|---------|--------------|
| kVA Cap. | Catalog Number | Hz. | Wgt. Lbs | Tap Code | Maximum Amps | | Conn Dia. | Height A | Width B | Depth C | Outline Dwg. |
| | | | | | Pri. | Sec. | | | | | |
| 1.0 | 80-7235 | 50/60 | 29 | * | 2.0 | 8.3 / 4.1 | See Wind. Dia. at Right | 10.88 | 5.50 | 4.75 | 2 |
| 1.5 | 80-7240 | 50/60 | 37 | * | 3.1 | 12.5 / 6.2 | | 10.63 | 6.63 | 5.88 | 2 |
| 2.0 | 80-7245 | 60 | 41 | * | 4.1 | 16.6 / 8.3 | | 11.00 | 6.63 | 5.88 | 2 |
| 3.0 | 80-7250 | 60 | 53 | * | 6.2 | 25.0 / 12.5 | | 10.88 | 7.69 | 6.88 | 2 |
| 5.0 | 80-7255 | 60 | 77 | * | 10.4 | 41.6 / 20.8 | | 13.69 | 7.69 | 6.88 | 2 |



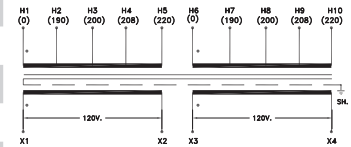
* Tap Configuration for this series is: 2 - 5% FCBN

Single Phase - General Purpose Ventilated

EXPORT MODEL

190/200/208/220 X 380/400/416/440 TO 120/240

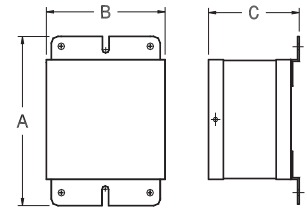
| General Information | | | | Winding Specifications | | | Dimensions | | | | |
|---------------------|----------------|-------|----------|------------------------|--------------|-----------|-------------------|----------|---------|---------|--------------|
| kVA Cap. | Catalog Number | Hz. | Wgt. Lbs | Taps | Maximum Amps | | Conn Dia. | Height A | Width B | Depth C | Outline Dwg. |
| | | | | | Pri. | Sec. | | | | | |
| 1 | ES-13200.406 | 50/60 | 60 | 0 | 5.26..2.27 | 8.33/4.1 | See Dia. at Right | 15.25 | 5.75 | 5.87 | 3 |
| 2 | ES-13230.406 | 50/60 | 70 | 0 | 10.5/4.55 | 16.6/8.3 | | 15.25 | 5.75 | 5.87 | 3 |
| 3 | ES-13250.406 | 50/60 | 95 | 0 | 15.8..6.82 | 25/12.5 | | 15.25 | 5.75 | 5.87 | 3 |
| 5 | ES-13300.406 | 50/60 | 125 | 0 | 26.3..11.4 | 41.6/20.5 | | 15.25 | 8.25 | 7.87 | 3 |
| 7.5 | ES-13330.406 | 50/60 | 150 | 0 | 39.5..17 | 62.5/31 | | 15.25 | 8.25 | 7.87 | 3 |
| 10 | ES-13360.406 | 50/60 | 240 | 0 | 52.7/22.7 | 83.3/42 | | 15.75 | 14.25 | 8.75 | 4 |
| 15 | ES-13380.406 | 50/60 | 320 | 0 | 79..34 | 125/62.5 | | 15.75 | 14.25 | 8.75 | 4 |
| 25 | ES-13410.406 | 50/60 | 400 | 0 | 131.6..56.8 | 208.3/104 | | 19.38 | 17.56 | 11.5 | 4 |



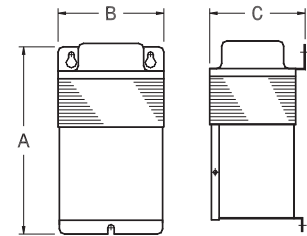
EXPORT MODEL

190/200/208/220 X 380/400/416/440 TO 110/220

| General Information | | | | Winding Specifications | | | Dimensions | | | | |
|---------------------|----------------|-------|----------|------------------------|--------------|-------------|-------------------|----------|---------|---------|--------------|
| kVA Cap. | Catalog Number | Hz. | Wgt. Lbs | Taps | Maximum Amps | | Conn Dia. | Height A | Width B | Depth C | Outline Dwg. |
| | | | | | Pri. | Sec. | | | | | |
| 1 | ES-13200.344 | 50/60 | 60 | 0 | 5.26..2.27 | 9/4.5 | See Dia. at Right | 15.25 | 5.75 | 5.87 | 3 |
| 2 | ES-13230.344 | 50/60 | 70 | 0 | 10.5/4.55 | 18.1/9 | | 15.25 | 5.75 | 5.87 | 3 |
| 3 | ES-13250.344 | 50/60 | 95 | 0 | 15.8..6.82 | 27.3/13.6 | | 15.25 | 5.75 | 5.87 | 3 |
| 5 | ES-13300.344 | 50/60 | 125 | 0 | 26.3..11.4 | 45.4/22.7 | | 15.25 | 8.25 | 7.87 | 3 |
| 7.5 | ES-13330.344 | 50/60 | 150 | 0 | 39.5..17 | 68.2/34 | | 15.25 | 8.25 | 7.87 | 3 |
| 10 | ES-13360.344 | 50/60 | 240 | 0 | 52.7/22.7 | 90.9/45.5 | | 15.75 | 14.25 | 8.75 | 4 |
| 15 | ES-13380.344 | 50/60 | 320 | 0 | 79..34 | 136.3/68.2 | | 15.75 | 14.25 | 8.75 | 4 |
| 25 | ES-13410.344 | 50/60 | 400 | 0 | 131.6..56.8 | 227.3/113.6 | | 19.38 | 17.56 | 11.5 | 4 |



Outline Drawing 1
Wall Mount - Ventilated - NEMA Type 1



Outline Drawing 2
Wall Mount - Ventilated - NEMA Type 3R

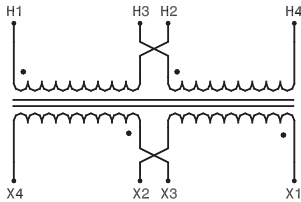
EXPORT MODEL

190/200/208/220 X 380/400/416/440/480 TO 120/240

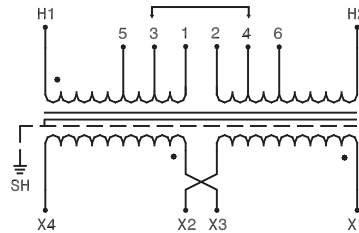
| General Information | | | | Winding Specifications | | | Dimensions | | | | |
|---------------------|----------------|-------|----------|------------------------|--------------|-----------|-------------------|----------|---------|---------|--------------|
| kVA Cap. | Catalog Number | Hz. | Wgt. Lbs | Taps | Maximum Amps | | Conn Dia. | Height A | Width B | Depth C | Outline Dwg. |
| | | | | | Pri. | Sec. | | | | | |
| 1 | ES-13200.498 | 50/60 | 60 | 0 | 5.26..2.27 | 8.33/4.1 | See Dia. at Right | 15.25 | 5.75 | 5.87 | 3 |
| 2 | ES-13230.498 | 50/60 | 70 | 0 | 10.5/4.55 | 16.6/8.3 | | 15.25 | 5.75 | 5.87 | 3 |
| 3 | ES-13250.498 | 50/60 | 95 | 0 | 15.8..6.82 | 25/12.5 | | 15.25 | 5.75 | 5.87 | 3 |
| 5 | ES-13300.498 | 50/60 | 125 | 0 | 26.3..11.4 | 41.6/20.5 | | 15.25 | 8.25 | 7.87 | 3 |
| 7.5 | ES-13330.498 | 50/60 | 150 | 0 | 39.5..17 | 62.5/31 | | 15.25 | 8.25 | 7.87 | 3 |
| 10 | ES-13360.498 | 50/60 | 240 | 0 | 52.7/22.7 | 83.3/42 | | 15.75 | 14.25 | 8.75 | 4 |
| 15 | ES-13380.498 | 50/60 | 320 | 0 | 79..34 | 125/62.5 | | 15.75 | 14.25 | 8.75 | 4 |
| 25 | ES-13410.498 | 50/60 | 400 | 0 | 131.6..56.8 | 208.3/104 | | 19.38 | 17.56 | 11.5 | 4 |

Single Phase Connection Diagrams

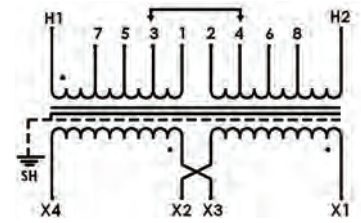
| Dia. 1 | | Catalog Series 35-10XX & 80-10XX | | | |
|-----------------|---------------------------|-------------------------------------|-------------------------------|--|--|
| Tap Arrangement | | None | | | |
| % High Voltage | High Voltage 240 X 480 | Inter-Connect | Connect High Voltage Lines To | | |
| 100 | 240 | H1 To H3 H2 To H4 | H1H3 & H2H4 | | |
| 100 | 480 | H2 To H3 | H1 & H4 | | |
| % Low Voltage | Low Voltage 120 / 240 | Inter-Connect | Connect Low Voltage Lines To | | |
| 100 | 120 | X1 To X3 X2 To X4 | X1X3 & X2X4 | | |
| 100 | 120 / 240 | X2 To X3 | X1 & X2X3 & X4 | | |
| 100 | 240 | X2 To X3 | X1 & X4 | | |



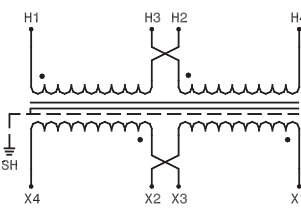
| Dia. 2 | | Catalog Series 85-14XXSH & 61-14XXSH | | | |
|-----------------|---------------------------|--|-------------------------------|--|--|
| Tap Arrangement | | 2 - 2½ FCAN (Full Capacity Above Normal) 2 - 2½ FCBN (Full Capacity Below Normal) | | | |
| % High Voltage | High Voltage 240 X 480 | Inter-Connect | Connect High Voltage Lines To | | |
| 105 | 252 | H1 To 2 H2 To 1 | H1 & H2 | | |
| 100 | 240 | H1 To 4 H2 To 3 | | | |
| 95 | 228 | H1 To 6 H2 To 5 | | | |
| 105 | 504 | 1 To 2 | | | |
| 102.5 | 492 | 2 To 3 | | | |
| 100 | 480 | 3 To 4 | | | |
| 97.5 | 468 | 4 To 5 | | | |
| 95 | 456 | 5 To 6 | | | |
| % Low Voltage | Low Voltage 120 / 240 | Inter-Connect | Connect Low Voltage Lines To | | |
| 100 | 120 | X1 To X3 X2 To X4 | X1X3 & X2X4 | | |
| 100 | 120 / 240 | X2 To X3 | X1 & X2X3 & X4 | | |
| 100 | 240 | X2 To X3 | X1 & X4 | | |



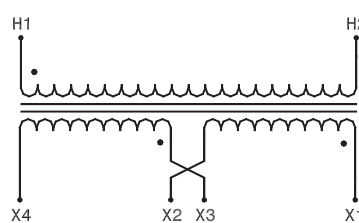
| Dia. 3 | | Catalog Series 41-16XXSH | | | |
|-----------------|---------------------------|--|-------------------------------|--|--|
| Tap Arrangement | | 2 - 2½ FCAN (Full Capacity Above Normal) 4 - 2½ FCBN (Full Capacity Below Normal) | | | |
| % High Voltage | High Voltage 240 X 480 | Inter-Connect | Connect High Voltage Lines To | | |
| 105 | 252 | H1 To 2 H2 To 1 | H1 & H2 | | |
| 100 | 240 | H1 To 4 H2 To 3 | | | |
| 95 | 228 | H1 To 6 H2 To 5 | | | |
| 90 | 216 | H1 To 8 H2 To 7 | | | |
| 105 | 504 | 1 To 2 | | | |
| 102.5 | 492 | 2 To 3 | | | |
| 100 | 480 | 3 To 4 | | | |
| 97.5 | 468 | 4 To 5 | | | |
| 95 | 456 | 5 To 6 | | | |
| 92.5 | 444 | 6 To 7 | | | |
| 90 | 432 | 7 To 8 | | | |
| % Low Voltage | Low Voltage 120 / 240 | Inter-Connect | Connect Low Voltage Lines To | | |
| 100 | 120 | X1 To X3 X2 To X4 | X1X3 & X2X4 | | |
| 100 | 120 / 240 | X2 To X3 | X1 & X2X3 & X4 | | |
| 100 | 240 | X2 To X3 | X1 & X4 | | |



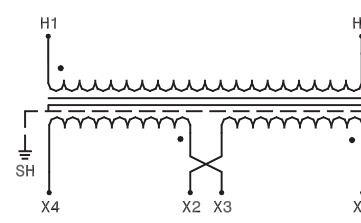
| Dia. 4 | | Catalog Series 85-10XXSH FP4X | | | |
|-----------------|---------------------------|----------------------------------|-------------------------------|--|--|
| Tap Arrangement | | None | | | |
| % High Voltage | High Voltage 240 X 480 | Inter-Connect | Connect High Voltage Lines To | | |
| 100 | 240 | H1 To H3 H2 To H4 | H1H3 & H2H4 | | |
| 100 | 480 | H2 To H3 | H1 & H4 | | |
| % Low Voltage | Low Voltage 120 / 240 | Inter-Connect | Connect Low Voltage Lines To | | |
| 100 | 120 | X1 To X3 X2 To X4 | X1X3 & X2X4 | | |
| 100 | 120 / 240 | X2 To X3 | X1 & X2X3 & X4 | | |
| 100 | 240 | X2 To X3 | X1 & X4 | | |



| Dia. 5 | | Catalog Series 35-30XX & 80-30XX | | | |
|-----------------|--------------------------|-------------------------------------|-------------------------------|--|--|
| Tap Arrangement | | None | | | |
| % High Voltage | High Voltage 208 | Inter-Connect | Connect High Voltage Lines To | | |
| 100 | 208 | -- | H1 & H2 | | |
| % Low Voltage | Low Voltage 120 / 240 | Inter-Connect | Connect Low Voltage Lines To | | |
| 100 | 120 | X1 To X3 X2 To X4 | X1X3 & X2X4 | | |
| 100 | 120 / 240 | X2 To X3 | X1 & X2X3 & X4 | | |
| 100 | 240 | X2 To X3 | X1 & X4 | | |

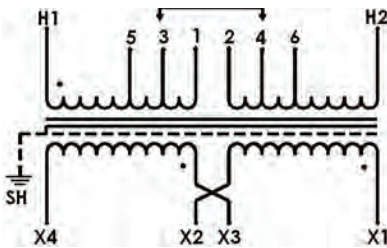


| Dia. 6 | | Catalog Series 85-30XXSH | | | |
|-----------------|--------------------------|-----------------------------|-------------------------------|--|--|
| Tap Arrangement | | None | | | |
| % High Voltage | High Voltage 208 | Inter-Connect | Connect High Voltage Lines To | | |
| 100 | 208 | -- | H1 & H2 | | |
| % Low Voltage | Low Voltage 120 / 240 | Inter-Connect | Connect Low Voltage Lines To | | |
| 100 | 120 | X1 To X3 X2 To X4 | X1X3 & X2X4 | | |
| 100 | 120 / 240 | X2 To X3 | X1 & X2X3 & X4 | | |
| 100 | 240 | X2 To X3 | X1 & X4 | | |

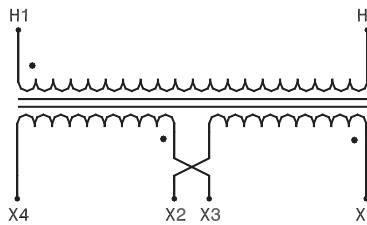


Single Phase Connection Diagrams

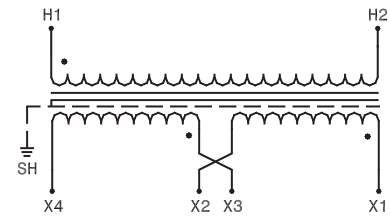
| Dia. 7 | | Catalog Series 41-34XXSH | | |
|-----------------|--|-----------------------------|-------------------------------|--|
| Tap Arrangement | 2-2½ % FCAN (Full Capacity Above Normal) 2-2½ % FCBN (Full Capacity Below Normal) | | | |
| % High Voltage | High Voltage | Inter-Connect | Connect High Voltage Lines To | |
| | 208 | | H1 & H2 | |
| 105 | 218 | 1 To 2 | | |
| 102.5 | 213 | 2 To 3 | | |
| 100 | 208 | 3 To 4 | | |
| 97.5 | 203 | 4 To 5 | | |
| 95 | 198 | 5 To 6 | | |
| % Low Voltage | Low Voltage | Inter-Connect | Connect Low Voltage Lines To | |
| | 120 / 240 | | H1 & H2 | |
| 100 | 120 | X1 To X3 X2 To X4 | X1X3 & X2X4 | |
| 100 | 120 / 240 | X2 To X3 | X1 & X2X3 & X4 | |
| 100 | 240 | X2 To X3 | X1 & X4 | |



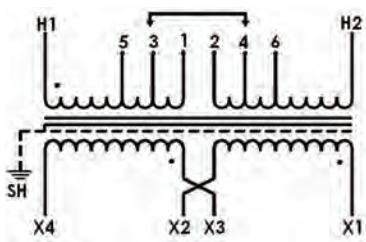
| Dia. 8 | | Catalog Series 35-40XX & 80-40XX | | |
|-----------------|--------------|-------------------------------------|-------------------------------|--|
| Tap Arrangement | None | | | |
| % High Voltage | High Voltage | Inter-Connect | Connect High Voltage Lines To | |
| | 277 | | H1 & H2 | |
| 100 | 277 | -- | H1 & H2 | |
| % Low Voltage | Low Voltage | Inter-Connect | Connect Low Voltage Lines To | |
| | 120 / 240 | | H1 & H2 | |
| 100 | 120 | X1 To X3 X2 To X4 | X1X3 & X2X4 | |
| 100 | 120 / 240 | X2 To X3 | X1 & X2X3 & X4 | |
| 100 | 240 | X2 To X3 | X1 & X4 | |



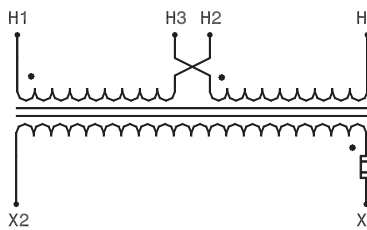
| Dia. 9 | | Catalog Series 85-40XXSH | | |
|-----------------|--------------|-----------------------------|-------------------------------|--|
| Tap Arrangement | None | | | |
| % High Voltage | High Voltage | Inter-Connect | Connect High Voltage Lines To | |
| | 277 | | H1 & H2 | |
| 100 | 277 | -- | H1 & H2 | |
| % Low Voltage | Low Voltage | Inter-Connect | Connect Low Voltage Lines To | |
| | 120 / 240 | | H1 & H2 | |
| 100 | 120 | X1 To X3 X2 To X4 | X1X3 & X2X4 | |
| 100 | 120 / 240 | X2 To X3 | X1 & X2X3 & X4 | |
| 100 | 240 | X2 To X3 | X1 & X4 | |



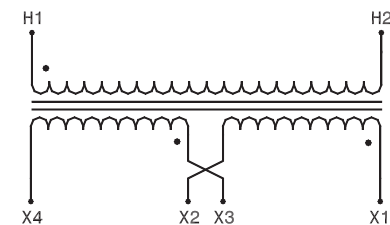
| Dia. 10 | | Catalog Series 41-44XXSH | | |
|-----------------|--|-----------------------------|-------------------------------|--|
| Tap Arrangement | 2-2½ % FCAN (Full Capacity Above Normal) 2-2½ % FCBN (Full Capacity Below Normal) | | | |
| % High Voltage | High Voltage | Inter-Connect | Connect High Voltage Lines To | |
| | 277 | | H1 & H2 | |
| 105 | 291 | 1 To 2 | | |
| 102.5 | 284 | 2 To 3 | | |
| 100 | 277 | 3 To 4 | | |
| 97.5 | 270 | 4 To 5 | | |
| 95 | 263 | 5 To 6 | | |
| % Low Voltage | Low Voltage | Inter-Connect | Connect Low Voltage Lines To | |
| | 120 / 240 | | H1 & H2 | |
| 100 | 120 | X1 To X3 X2 To X4 | X1X3 & X2X4 | |
| 100 | 120 / 240 | X2 To X3 | X1 & X2X3 & X4 | |
| 100 | 240 | X2 To X3 | X1 & X4 | |



| Dia. 11 | | Catalog Series 35-20XX & 80-20XX | | |
|-----------------|--------------|-------------------------------------|-------------------------------|--|
| Tap Arrangement | None | | | |
| % High Voltage | High Voltage | Inter-Connect | Connect High Voltage Lines To | |
| | 240 X 480 | | H1 & H2 | |
| 100 | 240 | H1 To H3 H2 To H4 | H1H3 & H2H4 | |
| 100 | 480 | H2 To H3 | H1 & H4 | |
| % Low Voltage | Low Voltage | Inter-Connect | Connect Low Voltage Lines To | |
| | 120 Fused | | H1 & H2 | |
| 100 | 120 | - | X1 & X2 | |

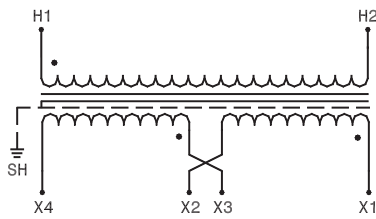


| Dia. 12 | | Catalog Series 35-50XX & 80-50XX | | |
|-----------------|--------------|-------------------------------------|-------------------------------|--|
| Tap Arrangement | None | | | |
| % High Voltage | High Voltage | Inter-Connect | Connect High Voltage Lines To | |
| | 600 | | H1 & H2 | |
| 100 | 600 | -- | H1 & H2 | |
| % Low Voltage | Low Voltage | Inter-Connect | Connect Low Voltage Lines To | |
| | 120 / 240 | | H1 & H2 | |
| 100 | 120 | X1 To X3 X2 To X4 | X1X3 & X2X4 | |
| 100 | 120 / 240 | X2 To X3 | X1 & X2X3 & X4 | |
| 100 | 240 | X2 To X3 | X1 & X4 | |

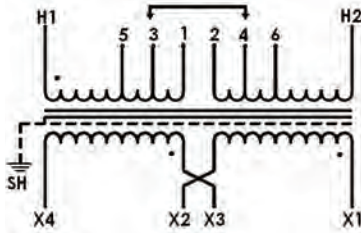


Single Phase Connection Diagrams

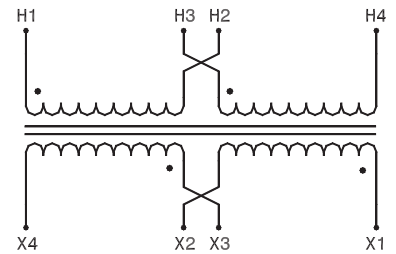
| Dia. 13 | | Catalog Series 85-50XXSH | | |
|-----------------|--------------|-----------------------------|-------------------------------|--|
| Tap Arrangement | None | | | |
| % High Voltage | High Voltage | Inter-Connect | Connect High Voltage Lines To | |
| 100 | 600 | -- | H1 & H2 | |
| % Low Voltage | Low Voltage | Inter-Connect | Connect Low Voltage Lines To | |
| 100 | 120 | X1 To X3 X2 To X4 | X1X3 & X2X4 | |
| 100 | 120 / 240 | X2 To X3 | X1 & X2X3 & X4 | |
| 100 | 240 | X2 To X3 | X1 & X4 | |



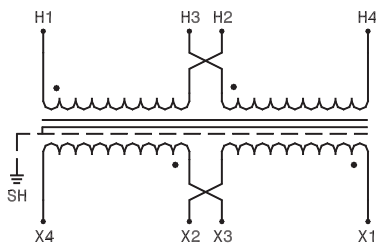
| Dia. 14 | | Catalog Series 41-54XXSH | | |
|-----------------|--|-----------------------------|-------------------------------|--|
| Tap Arrangement | 2-2½ % FCAN (Full Capacity Above Normal) 2-2½ % FCBN (Full Capacity Below Normal) | | | |
| % High Voltage | High Voltage | Inter-Connect | Connect High Voltage Lines To | |
| 105 | 630 | 1 To 2 | H1 & H2 | |
| 102.5 | 615 | 2 To 3 | | |
| 100 | 600 | 3 To 4 | | |
| 97.5 | 585 | 4 To 5 | | |
| 95 | 570 | 5 To 6 | | |
| % Low Voltage | Low Voltage | Inter-Connect | Connect Low Voltage Lines To | |
| 100 | 120 | X1 To X3 X2 To X4 | X1X3 & X2X4 | |
| 100 | 120 / 240 | X2 To X3 | X1 & X2X3 & X4 | |
| 100 | 240 | X2 To X3 | X1 & X4 | |



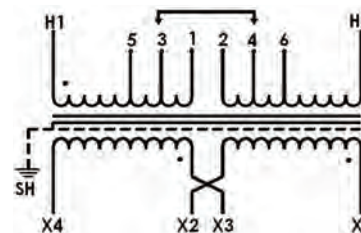
| Dia. 15 | | Catalog Series 35-60XX & 80-60XX | | |
|-----------------|--------------|-------------------------------------|-------------------------------|--|
| Tap Arrangement | None | | | |
| % High Voltage | High Voltage | Inter-Connect | Connect High Voltage Lines To | |
| 100 | 120 | H1 To H3 H2 To H4 | H1H3 & H2H4 | |
| 100 | 240 | H2 To H3 | H1 & H4 | |
| % Low Voltage | Low Voltage | Inter-Connect | Connect Low Voltage Lines To | |
| 100 | 120 | X1 To X3 X2 To X4 | X1X3 & X2X4 | |
| 100 | 120 / 240 | X2 To X3 | X1 & X2X3 & X4 | |
| 100 | 240 | X2 To X3 | X1 & X4 | |



| Dia. 16 | | Catalog Series 85-60XXSH | | |
|-----------------|--------------|-----------------------------|-------------------------------|--|
| Tap Arrangement | None | | | |
| % High Voltage | High Voltage | Inter-Connect | Connect High Voltage Lines To | |
| 100 | 120 | H1 To H3 H2 To H4 | H1H3 & H2H4 | |
| 100 | 240 | H2 To H3 | H1 & H4 | |
| % Low Voltage | Low Voltage | Inter-Connect | Connect Low Voltage Lines To | |
| 100 | 120 | X1 To X3 X2 To X4 | X1X3 & X2X4 | |
| 100 | 120 / 240 | X2 To X3 | X1 & X2X3 & X4 | |
| 100 | 240 | X2 To X3 | X1 & X4 | |



| Dia. 17 | | Catalog Series 41-64XXSH | | |
|-----------------|--|-----------------------------|-------------------------------|--|
| Tap Arrangement | 2 - 2½ FCAN (Full Capacity Above Normal) 2 - 2½ FCBN (Full Capacity Below Normal) | | | |
| % High Voltage | High Voltage | Inter-Connect | Connect High Voltage Lines To | |
| 105 | 126 | H1 To 2 H2 To 1 | H1 & H2 | |
| 100 | 120 | H1 To 4 H2 To 3 | | |
| 95 | 114 | H1 To 6 H2 To 5 | | |
| 105 | 252 | 1 To 2 | | |
| 102.5 | 246 | 2 To 3 | | |
| 100 | 240 | 3 To 4 | H1 & H2 | |
| 97.5 | 234 | 4 To 5 | | |
| 95 | 228 | 5 To 6 | | |
| % Low Voltage | Low Voltage | Inter-Connect | Connect Low Voltage Lines To | |
| 100 | 120 | X1 To X3 X2 To X4 | X1X3 & X2X4 | |
| 100 | 120 / 240 | X2 To X3 | X1 & X2X3 & X4 | |
| 100 | 240 | X2 To X3 | X1 & X4 | |



European Series CE Marked ES-11 Single Phase Transformers

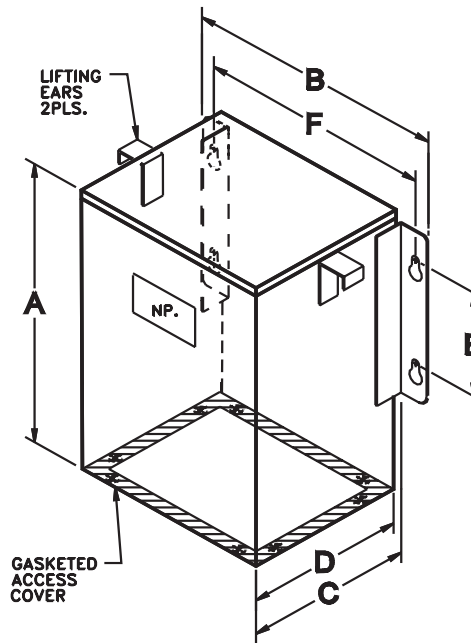
Series ES Single Phase Encapsulated Transformers are designed to comply with Domestic, North American, and European Union electrical and testing standards. Series ES are UL and Canadian UL Listed by Underwriters Labs. In addition, Series ES are CE Marked, and licensed by the German testing agency TÜV Rheinland under.

Series ES transformers are the answer to your export needs. With the voltage combinations listed below, and built in approvals, the ES Series provide no-nonsense solutions for equipment destined for the European Community of nations.

Dongan® provides finger safe terminals on all transformers.

The voltage combinations offered represent some of the most universally used. However, any combination of primary and secondary incorporating voltages of 600 volts and below is available on a short lead time, special order basis.

NEMA Type 3R- IP23 available



Series ES-11
Wall Mount - Encapsulated - NEMA Type 12 - IP54

| General Information | | | | | | | | | |
|---------------------|--------------------------------|-----------------|---------------------|-------|-------|----------|------|-------|--------------|
| Pri. Volts | 380/400/416/440 460/480/575 | 220/380/400/416 | Dimensions (inches) | | | | | | Weight (lbs) |
| Sec. Volts | 110/115/120 | 120/240 | A | B | C | Mounting | | | |
| kVA Cap. | Catalog Number | Catalog Number | A | B | C | D | E | F | Weight (lbs) |
| .250 | ES-11130.326 | ES-11130.359 | 10.50 | 10.00 | 6.62 | 6.12 | 4.00 | 8.50 | 35 |
| .500 | ES-11170.326 | ES-11170.359 | 10.50 | 10.00 | 6.62 | 6.12 | 4.00 | 8.50 | 45 |
| .750 | ES-11190.326 | ES-11190.359 | 10.50 | 10.00 | 6.62 | 6.12 | 4.00 | 8.50 | 55 |
| 1.0 | ES-11200.326 | ES-11200.359 | 12.00 | 10.81 | 7.19 | 6.69 | 6.00 | 9.13 | 75 |
| 1.5 | ES-11210.326 | ES-11210.359 | 14.00 | 14.00 | 9.25 | 8.75 | 8.00 | 12.00 | 90 |
| 2.0 | ES-11230.326 | ES-11230.359 | 14.00 | 14.00 | 9.25 | 8.75 | 8.00 | 12.00 | 110 |
| 3.0 | ES-11250.326 | ES-11250.359 | 14.00 | 14.00 | 9.25 | 8.75 | 8.00 | 12.00 | 120 |
| 5.0 | ES-11300.326 | ES-11300.359 | 14.00 | 14.38 | 10.00 | 9.50 | 8.00 | 12.38 | 150 |
| 7.5 | ES-11330.326 | ES-11330.359 | 15.00 | 18.00 | 12.50 | 12.00 | 8.00 | 16.00 | 165 |
| 10.0 | ES-11360.326 | ES-11360.359 | 15.00 | 18.00 | 12.50 | 12.00 | 8.00 | 16.00 | 190 |
| 15.0 | ES-11380.326 | ES-11380.359 | 15.00 | 18.00 | 12.50 | 12.00 | 8.00 | 16.00 | 270 |
| 25.0 | ES-11410.326 | ES-11410.359 | 18.00 | 21.00 | 15.00 | 14.50 | 8.00 | 19.00 | 350 |

Single Phase Transformers

Features

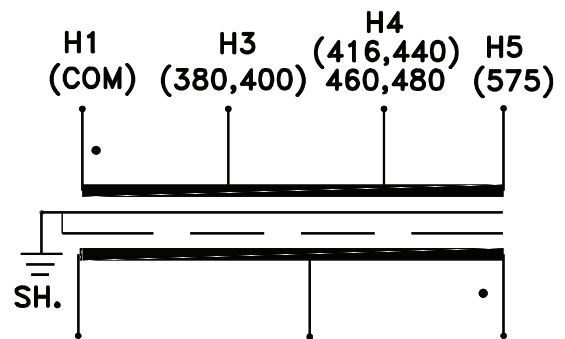
Agency Compliance



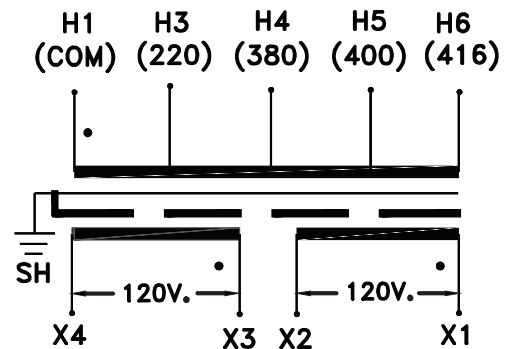
- NEMA Type 12, IP54 enclosure.
- IEC type finger safe terminals.
- 220°C (H) Insulation System.
- 50/60 Hertz.
- ES provided with an electrostatic shield.
- ES provided with protective earth (PE) terminal.



| Suffix .326 | | | | |
|---------------------|----------------------------|-----------------------|------------------------|--|
| Primary Connections | | Secondary Connections | | |
| Pri. Voltage | Connect Incoming Lines To: | Sec. Voltage | Connect Load Lines To: | |
| 380 | H1 & H3 | 110 | X1 & X3 | |
| 400 | H1 & H3 | 115 | X1 & X3 | |
| 416 | H1 & H4 | 115 | X1 & X4 | |
| 440 | H1 & H4 | 120 | X1 & X4 | |
| 460 | H1 & H4 | 115 | X1 & X3 | |
| 480 | H1 & H4 | 120 | X1 & X3 | |
| 575 | H1 & H5 | 120 | X1 & X4 | |



| Suffix .359 | | | | |
|---------------------|----------------------------|-----------------------|----------------------|------------------------|
| Primary Connections | | Secondary Connections | | |
| Pri. Voltage | Connect Incoming Lines To: | Sec. Voltage | Interconnect | Connect Load Lines To: |
| 220 | H1 & H3 | 120 | X1 to X3 X2 to X4 | X1 & X4 |
| 380 | H1 & H4 | 240 | X2 to X3 | X1 & X4 |
| 400 | H1 & H5 | 120/240 | X2 to X3 | X1 & X2X3 & X4 |
| 416 | H1 & H6 | | | |



Series 33 - Control Transformers

Series 33 Control Transformers are designed with a NEMA Type 1, indoor type enclosure and are fitted with 8" leads exiting through a 1/2" chase nipple. Dual mounting provisions are provided for both foot mount or direct knockout mount in point of use applications.

Typical applications include voltage reduction for solenoids, magnetic switches, control valves, as well as many other HVAC applications.

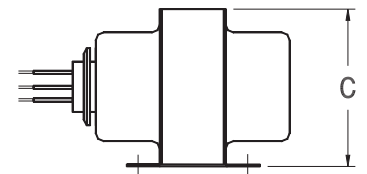
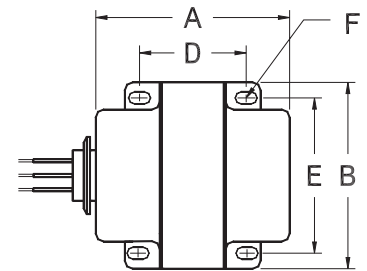
Features



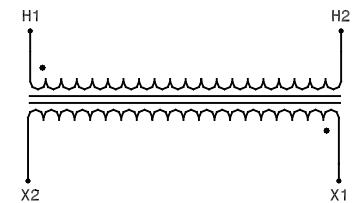
- NEMA Type 1.
- Available with manually resettable circuit breakers.
- Dual mounting capability.

| General Information | | | Capacity | | Dimensions | | | | | |
|--|----------------|----------|--------------|------|------------|---------|---------|----------|-------|-------------|
| kVA Cap. | Catalog Number | Wgt. Lbs | Maximum Amps | | Height A | Width B | Depth C | Mounting | | Slot Size F |
| | | | Pri. | Sec. | | | | D | E | |
| Primary 240 Volts, Secondary Volts 120, 50 / 60 Hz | | | | | | | | | | |
| .050 | 33-050-H | 2.7 | .20 | .41 | 3.19 | 3.00 | 2.50 | 1.69 | 2.50 | .188 x .344 |
| .100 | 33-100-H | 4 | .41 | .83 | 3.63 | 3.38 | 2.81 | 2.13 | 2.50 | .188 x .375 |
| Primary Volts, 240 x 480, Secondary Volts 24, 50 / 60 Hz | | | | | | | | | | |
| .050 | 33-050-HLK | 2.7 | .20 / .10 | 2.08 | 3.19 | 3.00 | 2.50 | 1.69 | 2.50 | .188 x .344 |
| .100 | 33-100-HLK | 4 | .41 / .21 | 4.16 | 3.63 | 3.38 | 2.81 | 2.13 | 2.50 | .188 x .375 |
| Primary Volts 120, Secondary 24, 50 / 60 Hz | | | | | | | | | | |
| .050 | 33-050-K | 2.7 | .41 | 2.08 | 3.19 | 3.00 | 2.50 | 1.69 | 2.50 | .188 x .344 |
| .100 | 33-100-K | 4 | .83 | 4.16 | 3.63 | 3.38 | 2.81 | 2.13 | 2.50 | .188 x .375 |
| Primary Volts 240 x 480, Secondary Volts 120, 50 / 60 Hz | | | | | | | | | | |
| .050 | 33-050-PM | 2.7 | .20 / .10 | .41 | 3.19 | 3.00 | 2.50 | 1.69 | 2.50 | .188 x .344 |
| .100 | 33-100-PM | 4 | .41 / .21 | .83 | 3.63 | 3.38 | 2.81 | 2.13 | 2.50 | .188 x .375 |
| .150 | 33-150-PM | 6 | .62 / .31 | 1.25 | 4.00 | 3.75 | 3.13 | 2.38 | 3.25 | .219 x .375 |
| .250 | 33-250-PM | 9 | 1.0 / .52 | 2.08 | 4.25 | 3.75 | 4.500 | 3.125 | 3.250 | .219 x .438 |
| Primary Volts 208, Secondary Volts, 120, 50 / 60 Hz | | | | | | | | | | |
| .050 | 33-050-17 | 2.7 | .24 | .41 | 3.19 | 3.00 | 2.50 | 1.69 | 2.50 | .188 x .344 |
| .100 | 33-100-17 | 4 | .48 | .83 | 3.63 | 3.38 | 2.81 | 2.13 | 2.50 | .188 x .375 |
| Primary Volts 208, Secondary Volts 24, 50 / 60 Hz | | | | | | | | | | |
| .050 | 33-050-18 | 2.7 | .24 | 2.08 | 3.19 | 3.00 | 2.50 | 1.69 | 2.50 | .188 x .344 |
| .100 | 33-100-18 | 4 | .48 | 4.16 | 3.63 | 3.38 | 2.81 | 2.13 | 2.50 | .188 x .375 |
| Primary Volts 277, Secondary Volts 24, 50 / 60 Hz | | | | | | | | | | |
| .050 | 33-050-26 | 2.7 | .18 | 2.08 | 3.19 | 3.00 | 2.50 | 1.69 | 2.50 | .188 x .344 |
| .100 | 33-100-26 | 4 | .36 | 4.16 | 3.63 | 3.38 | 2.81 | 2.13 | 2.50 | .188 x .375 |
| Primary Volts 277, Secondary Volts 120, 50 / 60 Hz | | | | | | | | | | |
| .050 | 33-050-82 | 2.7 | .18 | .41 | 3.19 | 3.00 | 2.50 | 1.69 | 2.50 | .188 x .344 |
| .100 | 33-100-82 | 4 | .36 | .83 | 3.63 | 3.38 | 2.81 | 2.13 | 2.50 | .188 x .375 |

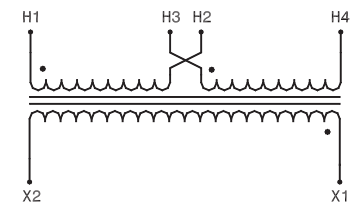
Dimensions & weights may change. Consult factory for certified drawings.



SINGLE PRIMARY



DUAL PRIMARY



Series HL - Hazardous Location

Series HL - Hazardous Location Transformers are designed for applications where the possibility of a fire or explosion may result from sparks in environments containing high concentrations of dust, gases or other volatile substances.

Series HL transformer's wiring compartments are completely filled with electrical grade silica and resin, leaving no access to the core and coil or other internal components.

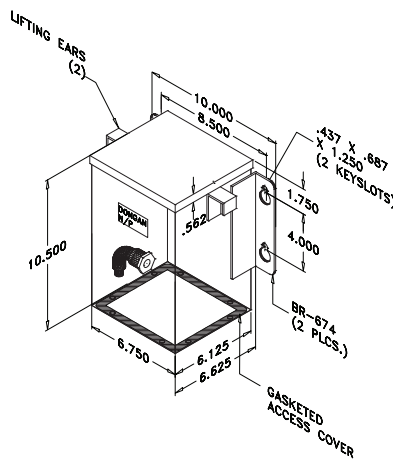
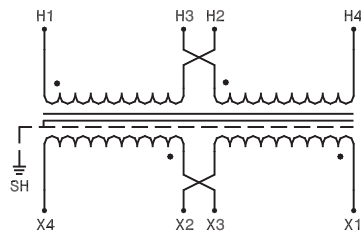
Note: all unused leads must be insulated in accordance with all applicable codes and standards.

Features

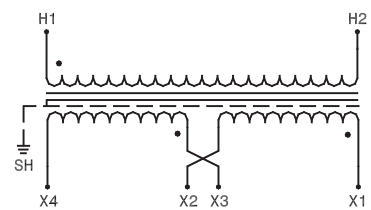
- **UL Recognized Component E100887**
- NEMA Type 12 indoor/outdoor enclosure.
- Primary and secondary leads are approximately 18 inches long.
- Consult factory for desired voltage combinations and VA sizes not listed.
- Stainless steel enclosures are also available.
- Electrostatic shield provided on all units.
- Class 1 Div II rated

| General Information | | | | | | | | | |
|---------------------|----------------|----------------|---------------------|---------|---------|----------|------|--------------|--|
| Pri. Volts | 240 x 480 | 600 | Dimensions (inches) | | | | | Weight (lbs) | |
| Sec. Volts | 120 / 240 | 120 / 240 | | | | | | | |
| | 60 Hz | 60 Hz | | | | | | | |
| kVA Cap. | Catalog Number | Catalog Number | Height A | Width B | Depth C | Mounting | | Weight (lbs) | |
| | | | | | | D | E | | |
| .500 | HL12-1025SH | HL12-5025SH | 10.50 | 10.00 | 6.62 | 6.12 | 4.00 | 40 | |
| .750 | HL12-1030SH | HL12-5030SH | 10.50 | 10.00 | 6.62 | 6.12 | 4.00 | 42 | |
| 1.0 | HL12-1035SH | HL12-5035SH | 10.50 | 10.00 | 6.62 | 6.12 | 4.00 | 45 | |
| 1.5 | HL12-1040SH | HL12-5040SH | 10.50 | 10.00 | 6.62 | 6.12 | 4.00 | 50 | |
| 2.0 | HL12-1045SH | HL12-5045SH | 12.00 | 10.81 | 7.19 | 6.69 | 6.00 | 75 | |
| 3.0 | HL12-1050SH | HL12-5050SH | 12.00 | 10.81 | 7.19 | 6.69 | 6.00 | 80 | |
| 5.0 | HL12-1055SH | HL12-5055SH | 14.00 | 14.00 | 9.25 | 8.75 | 8.00 | 140 | |
| 7.5 | HL12-1060SH | HL12-5060SH | 14.00 | 14.38 | 10.25 | 9.75 | 8.00 | 205 | |

DUAL PRIMARY



SINGLE PRIMARY



Series HL

Wall Mount - Encapsulated - NEMA 12 - IP54

Dimensions & weights may change. Consult factory for certified drawings.



DONGAN ELECTRIC INTRODUCES OUR NEW PRODUCT OFFERING



Class 2 transformers

The NEC defines a Class 2 circuit as that portion of the wiring system between the load side of a Class 2 power source and the connected equipment. Due to its power limitations, a Class 2 circuit is considered safe from a fire initiation standpoint and provides acceptable protection from electrical shock. These are typically low-current applications operating at 100VA or less and 30 volts or less. Some Class 2 circuits include air conditioning thermostats, garage door openers and sprinkler system controls. A Class 2 transformer is used to supply Class 2 circuits.



Class 2 transformers have a maximum VA rating of less than 100 VA with most being in the 10-40 VA range. Voltages are a maximum of 240 volts on the primary and these transformers can have multi-tap primary voltages. The secondary is typically 24 volts or less. All

class 2 transformers are limited by either the circuit safety device or their own design.

If a transformer is said to be **inherently** protected that indicates the transformer is designed in such a way as to protect itself and the load without the addition of any fuse. This is accomplished by designing the unit with high impedance. A **non-inherently** protected transformer is protected by an internal fuse or circuit breaker. In the instance of an internal fuse it is a one shot fail fuse, so once the fuse trips, the transformer is rendered inoperable. Smaller class 2 transformers of 50VA or less typically do not have fuses or circuit breakers with the circuit as the transformer is designed to prevent overload by failing before the circuit overheats. In essence the VA determines whether the transformer is inherently or non-inherently protected.

Class 2 Transformer Applications

Class 2 transformers are used in many home and business settings. Common residential items include the power supply on a cordless phone, transformer on a plug-in coffee maker, laptops, the transformer for a plug-in toy and an antenna signal booster. A wall plug is sometimes referred to as a Wall Wort and is another example of a Class 2 transformer found in a business environment might include the power supply for a PBX phone switcher, bakery ovens or external landscape lighting. The market for these is OEM based.

UL

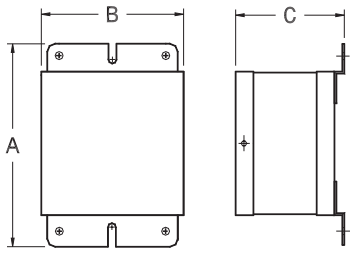
Class 2 transformers must be used in conjunction with Class II circuits. The maximum secondary output cannot exceed 30 alternate current voltage (VAC). The most common combination is 75 VA and 24 VAC. They are regulated by Underwriters Laboratories (UL) guidelines and can be either inherently or non-inherently limited. Dongan sells UL listed Class 2 transformers. However this file is much different that our typical Class 1 transformer file with UL. We must submit each new model for rigorous testing by UL and then that catalog number gets added into our file.

- Commercial Ovens
- Commercial and Industrial Air handling Equipment
- Low voltage lighting
- Irrigation Equipment
- Residential Furnaces
- Residential and Commercial Appliances
- Commercial Laundry Equipment
- Battery Chargers
- Vending Machines
- Espresso Machines
- Ice Cream machines

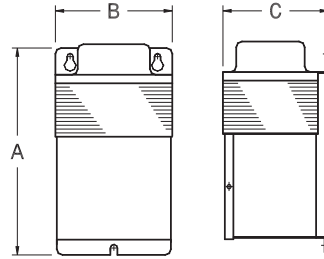


Single Phase Outline Drawings

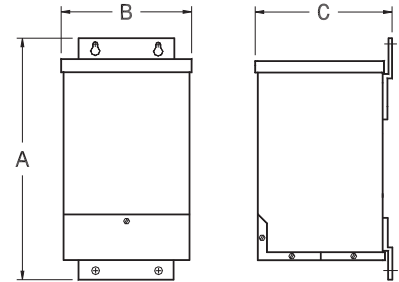
Outline Drawings



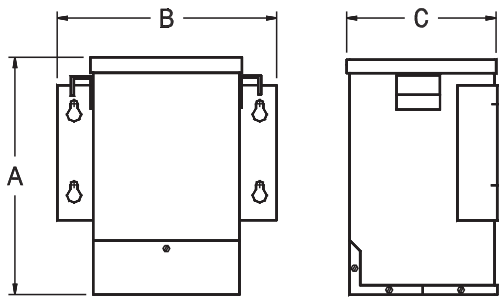
Outline Drawing 1 - Wall Mount



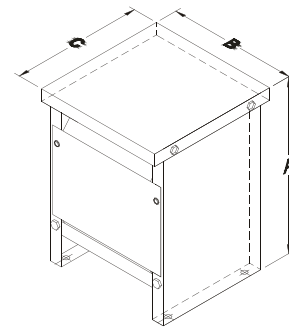
Outline Drawing 2 - Wall Mount



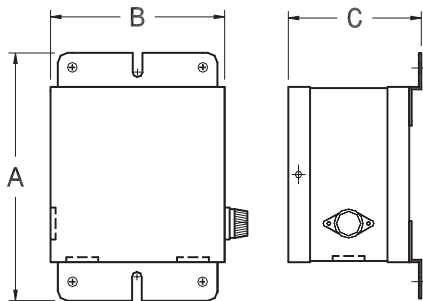
Outline Drawing 3 - Wall Mount



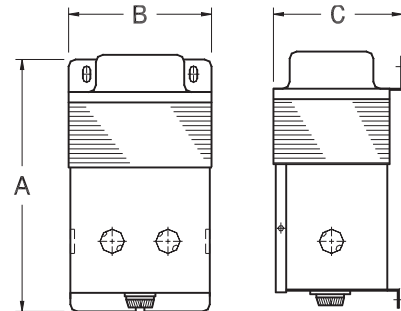
Outline Drawing 4 - Wall Mount



Outline Drawing 5 - Floor Mount



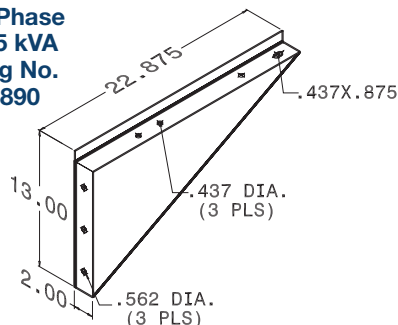
Outline Drawing 6 - Wall Mount



Outline Drawing 7 - Wall Mount

Wall Mounting Brackets - Single Phase 7.5 kVA - 50 kVA

Single Phase
7.5 - 25 kVA
Catalog No.
BR - 890



Single Phase
37.5 - 50 kVA
Catalog No.
BR - 892

