

General Purpose

Energy efficient dry-type transformers 600 Volt Class, isolation type, single and three phase, 15 kVA through 500 kVA. Indoor and outdoor models available.

Accessories and Optional Design Styles

- Electrostatic shield for quality power
- Wall mounting brackets (500 lbs maximum) (Item WB1C)
- Weather Shields (UL-3R)*
- Stainless Steel Enclosures
- Totally enclosed non-ventilated designs (TENV) (Non UL)
- Open core and coil designs (UL Recognized)
- Copper Wound designs
- Low temperature designs

Features

- UL-3R ventilated outdoor enclosures when used with optional weather shields (order separately)
- UL Class 220°C insulation system, 150°C temperature rise under full load
- Terminal board connections and spacious wiring compartment



- Panel enclosure design reduces labor time. Wiring diagram on inside front cover.
- High efficiency for low cost operation
- Compliant to NEMA TP-1 Standards
- Single and three phase availability
- Fast delivery
- 10 year warranty

Selection Tables: Single Phase

Group 1: 240 x 480 Volt Primary, 120/240 Secondary, 60 Hz



| kVA | Catalog Number | NEMA 3R Weather Shield* | Height (inch) | Width (inch) | Depth (inch) | Approx. Ship Weight (lbs) | Design Style** | Elec Conn** | Primary Amps | Secondary Amps |
|------|----------------|-------------------------|---------------|--------------|--------------|---------------------------|----------------|-------------|--------------|----------------|
| 15 | ES5H15S | WS-15 | 28 | 16 | 16 | 210 | 1 | 1 | 62.5/31.3 | 125/62.5 |
| 25 | ES5H25S | WS-15 | 28 | 16 | 16 | 245 | 1 | 1 | 104/52.1 | 208/104 |
| 37.5 | ES5H37S | WS-17 | 31 | 18 | 18 | 340 | 1 | 1 | 156/78 | 313/156 |
| 50 | ES5H50S | WS-17 | 31 | 18 | 18 | 415 | 1 | 1 | 208/104 | 416/208 |
| 75 | ES5H75S | WS-09 | 44 | 23 | 21 | 610 | 1 | 1 | 313/156 | 625/313 |
| 100 | ES5H100S | WS-09 | 44 | 23 | 21 | 705 | 1 | 1 | 417/208 | 833/417 |
| 167 | ES5H167S | WS-16 | 46 | 26 | 24 | 980 | 1 | 1 | 695/348 | 1392/695 |

Group 2 – 120/208/240/277 Volt Primary, 120/240 Secondary, 60 Hz



| kVA | Catalog Number | NEMA 3R Weather Shield* | Height (inch) | Width (inch) | Depth (inch) | Approx. Ship Weight (lbs) | Design Style** | Elec Conn | Primary Amps @ 277 V | Secondary Amps |
|-----|----------------|-------------------------|---------------|--------------|--------------|---------------------------|----------------|-----------|----------------------|----------------|
| 15 | ES12H15S | WS-15 | 28 | 16 | 16 | 215 | 1 | 2 | 54.2 | 125/62.5 |
| 25 | ES12H25S | WS-15 | 28 | 16 | 16 | 250 | 1 | 2 | 90.3 | 208/104 |

Notes:

* Weather shields (set of two) must be ordered separately.

**Design Style and Electrical Connections can be found on pages 204-205.

Selection Tables: Single Phase

Group 3 – 600 Volt Primary, 120/240 Secondary, 60 Hz



| kVA | Catalog Number | NEMA 3R Weather Shield* | Height (inch) | Width (inch) | Depth (inch) | Approx. Ship Weight (lbs) | Design Style** | Elec Conn** | Primary Amps | Secondary Amps |
|------|----------------|-------------------------|---------------|--------------|--------------|---------------------------|----------------|-------------|--------------|----------------|
| 15 | ES10H15S | WS-15 | 28 | 16 | 16 | 175 | 1 | 4 | 25 | 125/62.5 |
| 25 | ES10H25S | WS-15 | 28 | 16 | 16 | 265 | 1 | 4 | 41.7 | 208/104 |
| 37.5 | ES10H37S | WS-17 | 31 | 18 | 18 | 340 | 1 | 4 | 62.5 | 313/156 |
| 50 | ES10H50S | WS-17 | 31 | 18 | 18 | 410 | 1 | 4 | 83.3 | 416/208 |
| 75 | ES10H75S | WS-09 | 44 | 23 | 21 | 655 | 1 | 4 | 125 | 625/313 |
| 100 | ES10H100S | WS-09 | 44 | 23 | 21 | 750 | 1 | 4 | 167 | 833/417 |
| 167 | ES10H167S | WS-16 | 46 | 26 | 24 | 980 | 1 | 4 | 278 | 1392/695 |

Selection Tables: Three Phase

Group A: 480 Volt Δ Primary, 208/120 Secondary, 60 Hz



| kVA | Catalog Number | NEMA 3R Weather Shield* | Height (inch) | Width (inch) | Depth (inch) | Approx. Ship Weight (lbs) | Design Style** | Elec Conn** | Primary Amps | Secondary Amps |
|-------|----------------|-------------------------|---------------|--------------|--------------|---------------------------|----------------|-------------|--------------|----------------|
| 15 | ET2H15*** | WS-02 | 23 | 18 | 14 | 187 | 1 | 5 | 18.1 | 41.7 |
| | ET2H15S | | | | | | | | | |
| 30 | ET2H30*** | WS-14 | 28 | 23 | 16 | 292 | 1 | 5 | 36.1 | 83.4 |
| | ET2H30S | | | | | | | | | |
| 45 | ET2H45*** | WS-14 | 28 | 23 | 16 | 376 | 1 | 5 | 54.2 | 125.0 |
| | ET2H45S | | | | | | | | | |
| 75 | ET2H75*** | WS-30 | 34 | 28 | 22 | 569 | 1 | 5 | 90.3 | 208.0 |
| | ET2H75S | | | | | | | | | |
| 112.5 | ET2H112S | WS-30 | 34 | 28 | 22 | 768 | 1 | 5 | 135.0 | 313.0 |
| 150 | ET2H150S | WS-10 | 44 | 33 | 21 | 933 | 1 | 5 | 181.0 | 417.0 |
| 225 | ET2H225S | WS-11 | 46 | 36 | 24 | 1342 | 1 | 5 | 271.0 | 625.0 |
| 300 | ET2H300S | WS-11 | 46 | 36 | 24 | 1525 | 1 | 5 | 361.0 | 834.0 |
| 500 | ET2H500S | WS-12 | 65 | 45 | 35 | 2460 | 1 | 5 | 602.0 | 1390.0 |

Notes:

- * Weather shields (set of two) must be ordered separately.
- ** Design Style and Electrical Connections can be found on pages 199-200.
- *** Unshielded model.

Selection Tables: Three Phase

Group B: 480 Volt Δ Primary, 240 Volt Δ , Secondary with reduced capacity center tap***, 60 Hz



| kVA | Catalog Number | NEMA 3R Weather Shield* | Height (inch) | Width (inch) | Depth (inch) | Approx. Ship Weight (lbs) | Design Style** | Elec Conn** | Primary Amps | Secondary Amps |
|-------|----------------|-------------------------|---------------|--------------|--------------|---------------------------|----------------|-------------|--------------|----------------|
| 15 | ET5H15**** | WS-02 | 23 | 19 | 14 | 189 | 1 | 6 | 18.1 | 36.1 |
| | ET5H15S | | | | | | | | | |
| 30 | ET5H30**** | WS-14 | 28 | 23 | 16 | 292 | 1 | 6 | 36.1 | 72.3 |
| | ET5H30S | | | | | | | | | |
| 45 | ET5H45**** | WS-14 | 28 | 23 | 16 | 381 | 1 | 6 | 54.2 | 108.0 |
| | ET5H45S | | | | | | | | | |
| 75 | ET5H75**** | WS-30 | 34 | 28 | 22 | 560 | 1 | 6 | 90.3 | 181.0 |
| | ET5H75S | | | | | | | | | |
| 112.5 | ET5H112S | WS-30 | 34 | 28 | 22 | 760 | 1 | 6 | 135.0 | 271.0 |
| 150 | ET5H150S | WS-10 | 44 | 33 | 21 | 940 | 1 | 6 | 181.0 | 361.0 |
| 225 | ET5H225S | WS-11 | 46 | 36 | 24 | 1342 | 1 | 6 | 271.0 | 542.0 |
| 300 | ET5H300S | WS-11 | 46 | 36 | 24 | 1525 | 1 | 6 | 361.0 | 723.0 |
| 500 | ET5H500S | WS-12 | 65 | 45 | 35 | 2460 | 1 | 6 | 602.0 | 1204.0 |

Group C: 480 Volt Δ Primary, 480Y/277 Secondary, 60 Hz



| kVA | Catalog Number | NEMA 3R Weather Shield* | Height (inch) | Width (inch) | Depth (inch) | Approx. Ship Weight (lbs) | Design Style** | Elec Conn** | Primary Amps | Secondary Amps |
|-------|----------------|-------------------------|---------------|--------------|--------------|---------------------------|----------------|-------------|--------------|----------------|
| 15 | ET81H15S | WS-02 | 23 | 18 | 14 | 189 | 1 | 8 | 18.1 | 18.1 |
| 30 | ET81H30S | WS-14 | 28 | 23 | 16 | 295 | 1 | 8 | 36.1 | 36.1 |
| 45 | ET81H45S | WS-14 | 28 | 23 | 16 | 380 | 1 | 8 | 54.2 | 54.2 |
| 75 | ET81H75S | WS-30 | 34 | 28 | 22 | 560 | 1 | 8 | 90.3 | 90.3 |
| 112.5 | ET81H112S | WS-30 | 34 | 28 | 22 | 780 | 1 | 8 | 135.0 | 135.0 |
| 150 | ET81H150S | WS-10 | 44 | 33 | 21 | 933 | 1 | 8 | 181.0 | 181.0 |
| 225 | ET81H225S | WS-11 | 46 | 36 | 24 | 1342 | 1 | 8 | 271.0 | 271.0 |
| 300 | ET81H300S | WS-11 | 46 | 36 | 24 | 1525 | 1 | 8 | 361.0 | 361.0 |
| 500 | ET81H500S | WS-12 | 65 | 45 | 35 | 2460 | 1 | 8 | 602.0 | 602.0 |

Group D: 208 Volt Δ Primary, 480Y/277 Secondary, 60 Hz



| kVA | Catalog Number | NEMA 3R Weather Shield* | Height (inch) | Width (inch) | Depth (inch) | Ship Weight Approx. (lbs) | Design Style** | Elec Conn** | Primary Amps | Secondary Amps |
|-------|----------------|-------------------------|---------------|--------------|--------------|---------------------------|----------------|-------------|--------------|----------------|
| 15 | ET84H15S | WS-02 | 23 | 18 | 14 | 195 | 1 | 10 | 41.7 | 18.1 |
| 30 | ET84H30S | WS-14 | 28 | 23 | 16 | 295 | 1 | 10 | 83.4 | 36.1 |
| 45 | ET84H45S | WS-14 | 28 | 23 | 16 | 375 | 1 | 10 | 125.0 | 54.2 |
| 75 | ET84H75S | WS-30 | 34 | 28 | 22 | 570 | 1 | 10 | 208.0 | 90.3 |
| 112.5 | ET84H112S | WS-30 | 34 | 28 | 22 | 780 | 1 | 10 | 313.0 | 135.0 |
| 150 | ET84H150S | WS-10 | 44 | 33 | 21 | 972 | 1 | 10 | 417.0 | 181.0 |

Notes:

- * Weather shields (set of two) must be ordered separately.
- ** Electrical Connections and Design Style can be found on pages 197 and 204 respectively.
- *** See the Technical Notes section with respect to capacity of center tap.
- **** Unshielded model.

Ventilated Distribution Transformers



Selection Tables: Three Phase

Group E: 208 Volt Δ Primary, 208Y/120 Secondary, 60 Hz



| kVA | Catalog Number | NEMA 3R Weather Shield* | Height (inch) | Width (inch) | Depth (inch) | Ship Weight Approx. (lbs) | Design Style** | Elec Conn** | Primary Amps | Secondary Amps |
|-------|----------------|-------------------------|---------------|--------------|--------------|---------------------------|----------------|-------------|--------------|----------------|
| 15 | ET3H15S | WS-02 | 23 | 18 | 14 | 190 | 1 | 9 | 41.7 | 41.7 |
| 30 | ET3H30S | WS-14 | 28 | 23 | 16 | 295 | 1 | 9 | 83.4 | 83.4 |
| 45 | ET3H45S | WS-14 | 28 | 23 | 16 | 380 | 1 | 9 | 125.0 | 125.0 |
| 75 | ET3H75S | WS-30 | 34 | 28 | 22 | 570 | 1 | 9 | 208.0 | 208.0 |
| 112.5 | ET3H112S | WS-30 | 34 | 28 | 22 | 805 | 1 | 9 | 313.0 | 313.0 |
| 150 | ET3H150S | WS-10 | 44 | 33 | 21 | 972 | 1 | 9 | 416.0 | 416.0 |

Group F: 240 Volt Δ Primary, 208Y/120 Secondary, 60 Hz



| kVA | Catalog Number | NEMA 3R Weather Shield* | Height (inch) | Width (inch) | Depth (inch) | Ship Weight Approx. (lbs) | Design Style** | Elec Conn** | Primary Amps | Secondary Amps |
|-------|----------------|-------------------------|---------------|--------------|--------------|---------------------------|----------------|-------------|--------------|----------------|
| 15 | ET6H15S | WS-02 | 23 | 18 | 14 | 190 | 1 | 11 | 36.1 | 41.7 |
| 30 | ET6H30S | WS-14 | 28 | 23 | 16 | 295 | 1 | 11 | 72.3 | 83.4 |
| 45 | ET6H45S | WS-14 | 28 | 23 | 16 | 380 | 1 | 11 | 108.0 | 125.0 |
| 75 | ET6H75S | WS-30 | 34 | 28 | 22 | 570 | 1 | 11 | 181.0 | 208.0 |
| 112.5 | ET6H112S | WS-30 | 34 | 28 | 22 | 805 | 1 | 11 | 271.0 | 313.0 |
| 150 | ET6H150S | WS-10 | 44 | 33 | 21 | 972 | 1 | 11 | 361.0 | 417.0 |

Group G: 240 Volt Δ Primary, 480Y/277 Secondary, 60 Hz



| kVA | Catalog Number | NEMA 3R Weather Shield* | Height (inch) | Width (inch) | Depth (inch) | Ship Weight Approx. (lbs) | Design Style** | Elec Conn** | Primary Amps | Secondary Amps |
|-------|----------------|-------------------------|---------------|--------------|--------------|---------------------------|----------------|-------------|--------------|----------------|
| 15 | ET85H15S | WS-02 | 23 | 18 | 14 | 190 | 1 | 12 | 36.1 | 18.1 |
| 30 | ET85H30S | WS-14 | 28 | 23 | 16 | 295 | 1 | 12 | 72.3 | 36.1 |
| 45 | ET85H45S | WS-14 | 28 | 23 | 16 | 380 | 1 | 12 | 108.0 | 54.2 |
| 75 | ET85H75S | WS-30 | 34 | 28 | 22 | 560 | 1 | 12 | 181.0 | 90.3 |
| 112.5 | ET85H112S | WS-30 | 34 | 28 | 22 | 805 | 1 | 12 | 271.0 | 135.0 |
| 150 | ET85H150S | WS-10 | 44 | 33 | 21 | 972 | 1 | 12 | 361.0 | 181.0 |

Group H: 600 Volt Δ Primary, 208Y/120 Secondary, 60 Hz



| kVA | Catalog Number | NEMA 3R Weather Shield* | Height (inch) | Width (inch) | Depth (inch) | Approx. Ship Weight (lbs) | Design Style** | Elec Conn** | Primary Amps | Secondary Amps |
|-------|----------------|-------------------------|---------------|--------------|--------------|---------------------------|----------------|-------------|--------------|----------------|
| 15 | ET7H15S | WS-02 | 23 | 18 | 14 | 190 | 1 | 13 | 14.5 | 41.7 |
| 30 | ET7H30S | WS-14 | 28 | 23 | 16 | 292 | 1 | 13 | 28.9 | 83.4 |
| 45 | ET7H45S | WS-14 | 28 | 23 | 16 | 376 | 1 | 13 | 43.4 | 125.0 |
| 75 | ET7H75S | WS-30 | 34 | 28 | 22 | 570 | 1 | 13 | 72.3 | 208.0 |
| 112.5 | ET7H112S | WS-30 | 34 | 28 | 22 | 770 | 1 | 13 | 108.0 | 313.0 |
| 150 | ET7H150S | WS-10 | 44 | 33 | 21 | 933 | 1 | 13 | 145.0 | 417.0 |
| 225 | ET7H225S | WS-11 | 46 | 36 | 24 | 1325 | 1 | 13 | 217.0 | 625.0 |
| 300 | ET7H300S | WS-11 | 46 | 36 | 24 | 1525 | 1 | 13 | 289.0 | 834.0 |
| 500 | ET7H500S | WS-12 | 65 | 45 | 35 | 2460 | 1 | 13 | 482.0 | 1390.0 |

Notes:

* Weather shields (set of two) must be ordered separately.

** Design Style and Electrical Connections can be found on pages 204-205.

Selection Tables: Three Phase

Group I: 600 Volt Δ Primary, 480Y/277 Secondary, 60 Hz



| kVA | Catalog Number | NEMA 3R Weather Shield* | Height (inch) | Width (inch) | Depth (inch) | Ship Weight Approx. (lbs) | Design Style** | Elec Conn** | Primary Amps | Secondary Amps |
|-------|----------------|-------------------------|---------------|--------------|--------------|---------------------------|----------------|-------------|--------------|----------------|
| 15 | ET71H15S | WS-02 | 23 | 18 | 14 | 190 | 1 | 14 | 14.5 | 18.1 |
| 30 | ET71H30S | WS-14 | 28 | 23 | 16 | 292 | 1 | 14 | 28.9 | 36.1 |
| 45 | ET71H45S | WS-14 | 28 | 23 | 16 | 380 | 1 | 14 | 43.4 | 54.2 |
| 75 | ET71H75S | WS-30 | 34 | 28 | 22 | 560 | 1 | 14 | 72.3 | 90.3 |
| 112.5 | ET71H112S | WS-30 | 34 | 28 | 22 | 770 | 1 | 14 | 108.2 | 135.3 |
| 150 | ET71H150S | WS-10 | 44 | 33 | 21 | 933 | 1 | 14 | 144.3 | 180.4 |

Group J: 480 Volt Δ Primary, 380Y/220 Secondary, 60 Hz



| kVA | Catalog Number | NEMA 3R Weather Shield* | Height (inch) | Width (inch) | Depth (inch) | Ship Weight Approx. (lbs) | Design Style** | Elec Conn** | Primary Amps | Secondary Amps |
|-------|----------------|-------------------------|---------------|--------------|--------------|---------------------------|----------------|-------------|--------------|----------------|
| 15 | ET79H15S | WS-02 | 23 | 18 | 14 | 190 | 1 | 7 | 18.1 | 22.8 |
| 30 | ET79H30S | WS-14 | 28 | 23 | 16 | 292 | 1 | 7 | 36.1 | 45.6 |
| 45 | ET79H45S | WS-14 | 28 | 23 | 16 | 380 | 1 | 7 | 54.2 | 68.4 |
| 75 | ET79H75S | WS-30 | 34 | 28 | 22 | 360 | 1 | 7 | 90.3 | 114.0 |
| 112.5 | ET79H112S | WS-30 | 34 | 28 | 22 | 770 | 1 | 7 | 135.3 | 170.9 |
| 150 | ET79H150S | WS-10 | 44 | 33 | 21 | 933 | 1 | 7 | 180.4 | 227.9 |

Group K: 480 Volt Δ Primary, 208Y/120 Secondary, 60 Hz, Copper-Wound



| kVA | Catalog Number | NEMA 3R Weather Shield* | Height (inch) | Width (inch) | Depth (inch) | Ship Weight Approx. (lbs) | Design Style** | Elec Conn** | Primary Amps | Secondary Amps |
|-------|----------------|-------------------------|---------------|--------------|--------------|---------------------------|----------------|-------------|--------------|----------------|
| 15 | ET2H15SCU | WS-02 | 23 | 18 | 14 | 205 | 1 | 5 | 18.1 | 41.7 |
| 30 | ET2H30SCU | WS-14 | 28 | 23 | 16 | 305 | 1 | 5 | 36.1 | 83.4 |
| 45 | ET2H45SCU | WS-14 | 28 | 23 | 16 | 405 | 1 | 5 | 54.2 | 125.0 |
| 75 | ET2H75SCU | WS-30 | 34 | 28 | 22 | 535 | 1 | 5 | 90.3 | 208.0 |
| 112.5 | ET2H112SCU | WS-30 | 34 | 28 | 22 | 805 | 1 | 5 | 135.0 | 313.0 |
| 150 | ET2H150SCU | WS-10 | 44 | 33 | 21 | 972 | 1 | 5 | 181.0 | 417.0 |
| 225 | ET2H225SCU | WS-11 | 46 | 36 | 24 | 1325 | 1 | 5 | 271.0 | 625.0 |
| 300 | ET2H300SCU | WS-11 | 46 | 36 | 24 | 1515 | 1 | 5 | 361.0 | 834.0 |
| 500 | ET2H500SCU | WS-12 | 65 | 45 | 35 | 2460 | 1 | 5 | 602.0 | 1390.0 |

Notes:

- * Weather shields (set of two) must be ordered separately.
- ** Design Style and Electrical Connections can be found on pages 204-205.