

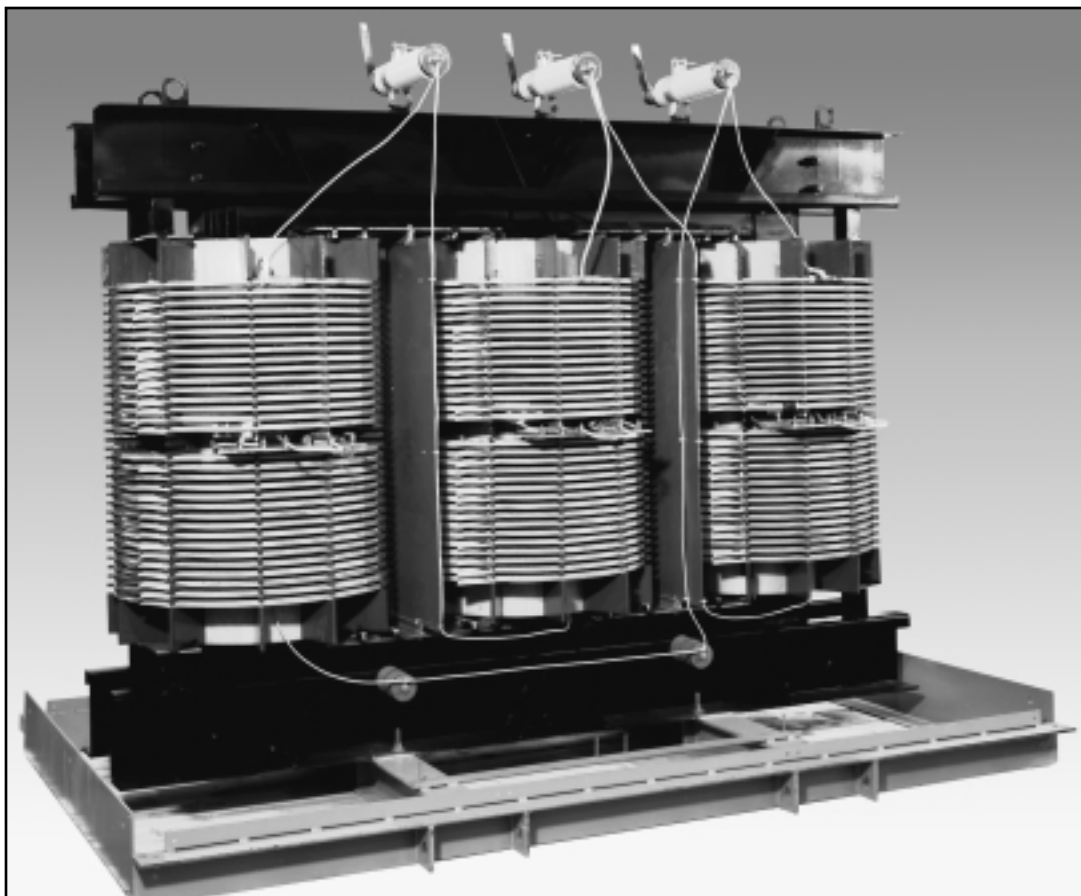
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# HIGH VOLTAGE DISTRIBUTION TRANSFORMERS HVDT SERIES

## DRY TYPE

SINGLE PHASE  
THREE PHASE

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- 2.5 KV–15KV class to 600V class transformation and isolation
  - Use for in-house applications, industrial, commercial, or institutional
  - All units designed and built in full compliance with NEMA and ANSI requirements
  - Safe, quiet, reliable
  - Sizes: 45KVA through 1000KVA
  - Designed, manufactured and serviced with over 55 years experience in standard and specialty transformers



362 Highway 31  
Flemington, New Jersey 08822  
Tel: 908/782-5525  
Fax: 908/782-9733  
[www.hitrancorp.com](http://www.hitrancorp.com)



# HVDT SERIES HIGH VOLTAGE DISTRIBUTION TRANSFORMERS

| SINGLE PHASE • 60HZ • 2.5 – 15KV CLASS • 150°C RISE/220°C CLASS • NEMA 1 ENCLOSED |                 |                        |    |    |                                |      |       |      |                  |
|---|-----------------|------------------------|----|----|--------------------------------|------|-------|------|------------------|
| KVA   | CATALOG NUMBER* | ENCLOSURE** DIMENSIONS |    |    | WEIGHT (inches) (approx. lbs.) |      |       |      | TYPE*** MOUNTING |
|   |                 | H                      | W  | D  | 2.5KV                          | 5KV  | 8.7KV | 15KV |                  |
| 50  | H1V050PSH6      | 39                     | 30 | 20 | 500                            | 525  | 580   | 675  | Floor (W)        |
| 75  | H1V075PSH6      | 39                     | 30 | 20 | 620                            | 650  | 720   | 825  | Floor (W)        |
| 100   | H1V110PSH6      | 43                     | 36 | 26 | 715                            | 750  | 830   | 950  | Floor            |
| 125   | H1V112PSH6      | 43                     | 36 | 26 | 895                            | 940  | 1035  | 1190 | Floor            |
| 167   | H1V116PSH6      | 48                     | 48 | 32 | 1120                           | 1175 | 1240  | 1430 | Floor            |
| 200   | H1V120PSH6      | 48                     | 48 | 32 | 1180                           | 1250 | 1370  | 1570 | Floor            |
| 250   | H1V125PSH6      | 48                     | 48 | 32 | 1315                           | 1380 | 1510  | 1735 | Floor            |
| 333   | H1V133PSH6      | 60                     | 54 | 40 | 1420                           | 1500 | 1660  | 1915 | Floor            |
| 500   | H1V150PSH6      | 60                     | 54 | 40 | 2425                           | 2550 | 2800  | 3225 | Floor            |

\*Select transformer PRIMARY and SECONDARY VOLTAGES, VOLTAGE CLASS, and TEMPERATURE RISE options by substituting the appropriate code number or code letter from the tables below for the letters P, S, V and H, respectively, in the catalog numbers listed above.

### P – PRIMARY VOLTAGE SELECTION

| PRIMARY VOLTAGE (V) | STANDARD VOLTAGE CLASS (KV) | CODE NUMBER |
|---------------------|-----------------------------|-------------|
| 2400                | 2.5                         | 1           |
| 2400/4160Y          | 5                           | 2           |
| 4160                | 5                           | 3           |
| 4800                | 5                           | 4           |
| 4160/7200Y          | 8.7                         | 5           |
| 6900/11950Y         | 15                          | 6           |
| 7200/12420Y         | 15                          | 7           |
| 7620/13200Y         | 15                          | 8           |
| 8320/14400Y         | 15                          | 9           |

### S – VOLTAGE SELECTION

| SECONDARY VOLTAGE | CODE NUMBER |
|-------------------|-------------|
| 120/240           | 1           |
| 240/480           | 2           |
| 277               | 3           |
| 600               | 4           |

### V – VOLTAGE CLASS OPTION

| VOLTAGE CLASS (KV) | LOW FREQUENCY TEST RATING (KV RMS) | BIL RATING (KV) | CODE NUMBER |
|--------------------|------------------------------------|-----------------|-------------|
| 2.5                | 10                                 | 20              | 2           |
| 5                  | 12                                 | 25              | 5           |
| 8.7                | 19                                 | 35              | 8           |
| 15                 | 31                                 | 50              | 9           |

### H – LOWER TEMPERATURE RISE OPTION

| TEMPERATURE RISE (°C) ( | INSULATION CLASS (°C) ( | CODE LETTER |
|-------------------------|-------------------------|-------------|
| 150                     | 220                     | H (Std.)    |
| 110                     | 220                     | F           |
| 85                      | 220                     | B           |
| 55                      | 220                     | A           |

All transformers are supplied with two 2 1/2% FCAN and two 2 1/2% FCBN taps.

VOLTAGE CLASS.....  
PRIMARY VOLTAGE.....  
SECONDARY VOLTAGE.....  
TEMPERATURE RISE.....

H1 V XXX P S H 6†

| THREE PHASE • 60HZ • 2.5 – 15KV CLASS • 150°C RISE/220°C CLASS • NEMA 1 ENCLOSED |                 |                                 |    |    |                       |      |       |      |                  |
|--|-----------------|---------------------------------|----|----|-----------------------|------|-------|------|------------------|
| KVA  | CATALOG NUMBER* | ENCLOSURE** DIMENSIONS (inches) |    |    | WEIGHT (approx. lbs.) |      |       |      | TYPE*** MOUNTING |
|  |                 | H                               | W  | D  | 2.5KV                 | 5KV  | 8.7KV | 15KV |                  |
| 45   | H3V045PSH6      | 39                              | 30 | 20 | 545                   | 575  | 635   | 730  | Floor (W)        |
| 75   | H3V075PSH6      | 39                              | 30 | 20 | 805                   | 850  | 935   | 1085 | Floor (W)        |
| 112.5  | H3V111PSH6      | 43                              | 36 | 26 | 1045                  | 1100 | 1220  | 1390 | Floor            |
| 150  | H3V115PSH6      | 48                              | 48 | 32 | 1325                  | 1400 | 1550  | 1775 | Floor            |
| 225  | H3V122PSH6      | 48                              | 48 | 32 | 1615                  | 1700 | 1890  | 2175 | Floor            |
| 300  | H3V130PSH6      | 60                              | 54 | 40 | 2330                  | 2450 | 2700  | 3110 | Floor            |
| 400  | H3V140PSH6      | 60                              | 54 | 40 | 2565                  | 2700 | 2985  | 3400 | Floor            |
| 500  | H3V150PSH6      | 72                              | 68 | 48 | 2945                  | 3100 | 3450  | 3975 | Floor            |
| 600  | H3V160PSH6      | 72                              | 68 | 48 | 3610                  | 3800 | 4250  | 4900 | Floor            |
| 750  | H3V175PSH6      | 72                              | 68 | 48 | 4420                  | 4650 | 5200  | 5900 | Floor            |
| 1000   | H3V210PSH6      | 84                              | 84 | 48 | 6075                  | 6400 | 7050  | 8150 | Floor            |

\*Select transformer PRIMARY and SECONDARY VOLTAGES, VOLTAGE CLASS, and TEMPERATURE RISE options by substituting the appropriate code number or code letter from the tables below for the letters P, S, V and H, respectively, in the catalog numbers listed above.

### P – PRIMARY VOLTAGE SELECTION

| PRIMARY VOLTAGE (V) | STANDARD VOLTAGE CLASS (KV) | CODE NUMBER |
|---------------------|-----------------------------|-------------|
| 2400Δ               | 2.5                         | 1           |
| 4160Δ               | 5                           | 2           |
| 4800Δ               | 5                           | 3           |
| 7200Δ               | 8.7                         | 4           |
| 8320Δ               | 8.7                         | 5           |
| 12000Δ              | 15                          | 6           |
| 12470Δ              | 15                          | 7           |
| 13200Δ              | 15                          | 8           |
| 13800Δ              | 15                          | 9           |

### S – VOLTAGE SELECTION

| SECONDARY VOLTAGE | CODE NUMBER |
|-------------------|-------------|
| 208Y/120          | 1           |
| 240Δ              | 2           |
| 480Δ              | 3           |
| 480Y/277          | 4           |
| 600Δ              | 5           |

### V – VOLTAGE CLASS OPTION

| VOLTAGE CLASS (KV) | LOW FREQUENCY TEST RATING (KV RMS) | BIL RATING (KV) | CODE NUMBER |
|--------------------|------------------------------------|-----------------|-------------|
| 2.5                | 10                                 | 20              | 2           |
| 5                  | 12                                 | 25              | 5           |
| 8.7                | 19                                 | 35              | 8           |
| 15                 | 31                                 | 50              | 9           |

### H – LOWER TEMPERATURE RISE OPTION

| TEMPERATURE RISE (°C) ( | INSULATION CLASS (°C) ( | CODE LETTER |
|-------------------------|-------------------------|-------------|
| 150                     | 220                     | H (Std.)    |
| 110                     | 220                     | F           |
| 85                      | 220                     | B           |
| 55                      | 220                     | A           |

All transformers are supplied with two 2 1/2% FCAN and two 2 1/2% FCBN taps.

VOLTAGE CLASS.....  
PRIMARY VOLTAGE.....  
SECONDARY VOLTAGE.....  
TEMPERATURE RISE.....

H3 V XXX P S H 6†

\*\*Dimensions listed are not to be used for construction purposes.

\*\*\* (W) Wall mounting brackets are available through 75KVA at slight extra cost.

† For 50Hz option, replace "6" with "5" as last digit of the catalog number.

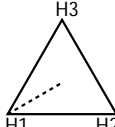
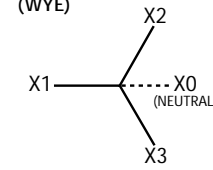
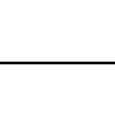
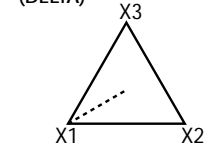
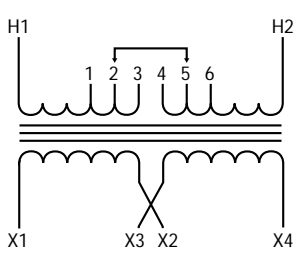
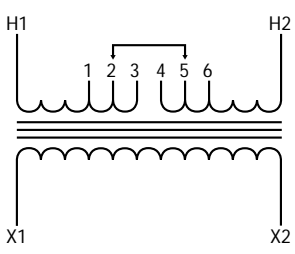
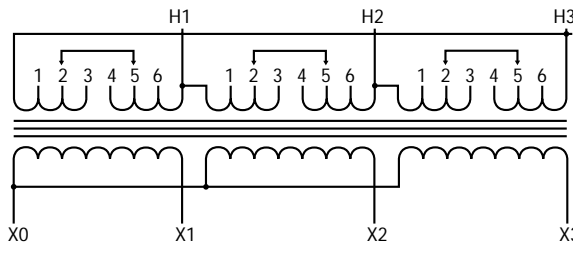
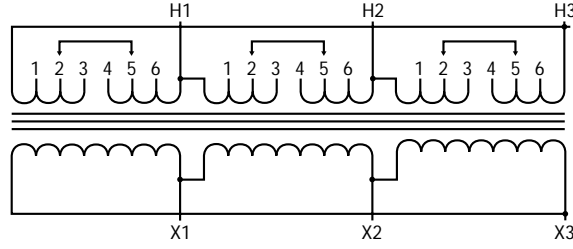
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# HVDT SERIES HIGH VOLTAGE DISTRIBUTION TRANSFORMERS



| SINGLE PHASE HVDT WIRING DATA |                  |                   |                | THREE PHASE HVDT WIRING DATA |                  |                   |                |
|-------------------------------|------------------|-------------------|----------------|------------------------------|------------------|-------------------|----------------|
| PS CODE                       | PRIMARY* (volts) | SECONDARY (volts) | WIRING DIAGRAM | PS CODE                      | PRIMARY* (volts) | SECONDARY (volts) | WIRING DIAGRAM |
| 11                            | 2400             | 120/240           | 1              | 11                           | 2400             | 208Y/120          | 3              |
| 12                            | 2400             | 240/480           | 1              | 12                           | 2400             | 240Δ              | 4              |
| 13                            | 2400             | 277               | 2              | 13                           | 2400             | 480Δ              | 4              |
| 14                            | 2400             | 480               | 2              | 14                           | 2400             | 480Y/277          | 3              |
|                               |                  |                   |                | 15                           | 2400             | 600Δ              | 4              |
| 21                            | 2400/4160Y       | 120/240           | 1              | 21                           | 4160             | 208Y/120          | 3              |
| 22                            | 2400/4160Y       | 240/480           | 1              | 22                           | 4160             | 240Δ              | 4              |
| 23                            | 2400/4160Y       | 277               | 2              | 23                           | 4160             | 480Δ              | 4              |
| 24                            | 2400/4160Y       | 480               | 2              | 24                           | 4160             | 480Y/277          | 3              |
|                               |                  |                   |                | 25                           | 4160             | 600Δ              | 4              |
| 31                            | 4160             | 120/240           | 1              | 31                           | 4800             | 208Y/120          | 3              |
| 32                            | 4160             | 240/480           | 1              | 32                           | 4800             | 240Δ              | 4              |
| 33                            | 4160             | 277               | 2              | 33                           | 4800             | 480Δ              | 4              |
| 34                            | 4160             | 480               | 2              | 34                           | 4800             | 480Y/277          | 3              |
|                               |                  |                   |                | 35                           | 4800             | 600Δ              | 4              |
| 41                            | 4800             | 120/240           | 1              | 41                           | 7200             | 208Y/120          | 3              |
| 42                            | 4800             | 240/480           | 1              | 42                           | 7200             | 240Δ              | 4              |
| 43                            | 4800             | 277               | 2              | 43                           | 7200             | 480Δ              | 4              |
| 44                            | 4800             | 480               | 2              | 44                           | 7200             | 480Y/277          | 3              |
|                               |                  |                   |                | 45                           | 7200             | 600Δ              | 4              |
| 51                            | 4160/7200Y       | 120/240           | 1              | 51                           | 8320             | 208Y/120          | 3              |
| 52                            | 4160/7200Y       | 240/480           | 1              | 52                           | 8320             | 240Δ              | 4              |
| 53                            | 4160/7200Y       | 277               | 2              | 53                           | 8320             | 480Δ              | 4              |
| 54                            | 4160/7200Y       | 480               | 2              | 54                           | 8320             | 480Y/277          | 3              |
|                               |                  |                   |                | 55                           | 8320             | 600Δ              | 4              |
| 61                            | 6900/11950Y      | 120/240           | 1              | 61                           | 12000            | 208Y/120          | 3              |
| 62                            | 6900/11950Y      | 240/480           | 1              | 62                           | 12000            | 240Δ              | 4              |
| 63                            | 6900/11950Y      | 277               | 2              | 63                           | 12000            | 480Δ              | 4              |
| 64                            | 6900/11950Y      | 480               | 2              | 64                           | 12000            | 480Y/277          | 3              |
|                               |                  |                   |                | 65                           | 12000            | 600               | 4              |
| 71                            | 7200/12420Y      | 120/240           | 1              | 71                           | 12470            | 208Y/120          | 3              |
| 72                            | 7200/12420Y      | 240/480           | 1              | 72                           | 12470            | 240               | 4              |
| 73                            | 7200/12420Y      | 277               | 2              | 73                           | 12470            | 480               | 4              |
| 74                            | 7200/12420Y      | 480               | 2              | 74                           | 12470            | 480Y/277          | 3              |
|                               |                  |                   |                | 75                           | 12470            | 600               | 4              |
| 81                            | 7620/13200Y      | 120/240           | 1              | 81                           | 13200            | 208Y/120          | 3              |
| 82                            | 7620/13200Y      | 240/480           | 1              | 82                           | 13200            | 240               | 4              |
| 83                            | 7620/13200Y      | 277               | 2              | 83                           | 13200            | 480               | 4              |
| 84                            | 7620/13200Y      | 480               | 2              | 84                           | 13200            | 480Y/277          | 3              |
|                               |                  |                   |                | 85                           | 13200            | 600Δ              | 4              |
| 91                            | 8320/14400Y      | 120/240           | 1              | 91                           | 13800            | 208Y/120          | 3              |
| 92                            | 8320/14400Y      | 240/480           | 1              | 92                           | 13800            | 240Δ              | 4              |
| 93                            | 8320/14400Y      | 277               | 2              | 93                           | 13800            | 480Δ              | 4              |
| 94                            | 8320/14400Y      | 480               | 2              | 94                           | 13800            | 480Y/277          | 3              |
|                               |                  |                   |                | 95                           | 13800            | 600Δ              | 4              |

\*All transformers are supplied with two 2 1/2% FCAN and two 2 1/2% FCBN taps.

| SINGLE PHASE HVDT SERIES WIRING CONNECTIONS  |                 |         |                   |   |         |                   | THREE PHASE HVDT SERIES WIRING CONNECTIONS   |                 |  |                                 |                |  |     |
|--|-----------------|---------|-------------------|---|---------|-------------------|--|-----------------|--|---------------------------------|----------------|--|-----|
| PRIMARY  |                 |         |                   | SECONDARY   |         |                   | PRIMARY  |                 |  |                                 | SECONDARY      |  |     |
| WIRING DIAGRAM   | LINE CONNECTION | VOLTAGE | JUMPER CONNECTION | LOAD CONNECTION   | VOLTAGE | JUMPER CONNECTION | WIRING DIAGRAM   | LINE CONNECTION | VOLTAGE                                | JUMPER CONNECTION               | WIRING DIAGRAM | LOAD CONNECTION  |     |
| 1  | H1-H2           | 105%    | 3-4               | X1-X4   | 120     | X1-X3, X2-X4      |    | (DELTA)         | 105%<br>102.5%<br>100%<br>97.5%<br>95% | 3-4<br>2-4<br>2-5<br>2-6<br>1-6 | 3              |   |     |
|  |                 | 102.5%  | 2-4               |   | 240     | X2-X3             |  |                 |  |                                 |                |  |     |
|  |                 | 100%    | 2-5               | X1-X4   | 240     | X1-X3, X2-X4      |  |                 |  |                                 |                |  |     |
|  |                 | 97.5%   | 2-6               |   | 480     | X2-X3             |  |                 |  |                                 |                |  |     |
| 95%  | 1-6             |         |                   |   |         |                   |  |                 |  |                                 |                |  |     |
| 2  | H1-H2           | 105%    | 3-4               | X1-X2   | 277     |                   |   | (DELTA)         | 105%<br>102.5%<br>100%<br>97.5%<br>95% | 3-4<br>2-4<br>2-5<br>2-6<br>1-6 | 4              |  |     |
|  |                 | 102.5%  | 2-4               |   |         |                   |  |                 |  |                                 |                |  | 480 |
|  |                 | 100%    | 2-5               |   |         |                   |  |                 |  |                                 |                |  |     |
|  |                 | 97.5%   | 2-6               |   |         |                   |  |                 |  |                                 |                |  |     |
| 95%  | 1-6             |         |                   |   |         |                   |  |                 |  |                                 |                |  |     |
| WIRING DIAGRAM 1.  |                 |         |                   | WIRING DIAGRAM 2.   |         |                   | WIRING DIAGRAM 3.  |                 |  |                                 |                |  |     |
|   |                 |         |                   |  |         |                   |  |                 |  |                                 |                |  |     |
| WIRING DIAGRAM 4.  |                 |         |                   |   |         |                   |  |                 |  |                                 |                |  |     |
|  |                 |         |                   |   |         |                   |  |                 |  |                                 |                |  |     |