Harmonic Mitigating Transformers

Energy Efficient, Dry Type

Catalog
7400CT0301R7/08

2008

Class 7400

CONTENTS

SQUARE D
by Schneider Electric

Schneider Electric

Key Features of Square D® Brand Energy Efficient, Dry-Type Transformers

- Smaller total area used, with 3 in. (76 mm) clearance from ventilated openings instead of 6 in. (152 mm), reducing the distance from the wall to the front of the device by 3 in. (76 mm)
- Terminals are sized to handle lug kits that are coordinated with other Square D brand products, increasing the ease of installation when used with other Square D brand equipment
- Increased wiring compartments provide a bending radius for 250% primary cables and multiple feeds on the secondary
- All units have 200% neutral to allow customers to feed standard and non-linear panels
- 200 °C UL Listed insulation system
- Decreased weight for easier handling of units

Three-phase energy efficient transformer (top cover, and all panels removed)

Energy Policy Act

The Energy Policy Act of 2005 declared the following information regarding low voltage dry-type distribution transformers:

The efficiency of a low voltage dry-type distribution transformer manufactured on or after January 1, 2007 shall be the Class I Efficiency Levels for distribution transformers specified in Table 4-2 of the *Guide for Determining Energy Efficiency for Distribution Transformers,* published by the National Electrical Manufacturers Association® (NEMA® TP-1–2002).

Schneider Electric introduced the first TP1-compliant low voltage dry-type distribution transformers in December 1998. With the 2005 Energy Act, Schneider Electric is expanding its offering of TP-1-compliant products by launching a new line of TP-1 qualified transformers.

Saving Money by Saving Energy

Minimum efficiencies have been established for each size of transformer, and extensive design, testing, and manufacturing time has been spent to ensure each transformer meets or exceeds these efficiencies.

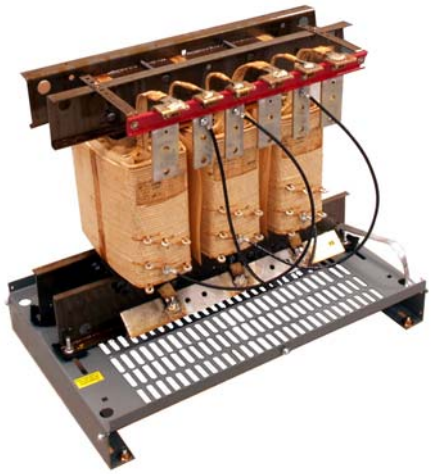
Surveys show that typical loading of low voltage dry-type transformers on a 24-hour average basis is only 35% of full-load rating. At such loading levels, Square D brand Lean Power™ Energy Efficient Transformers manufactured by Schneider Electric provide the best combination of optimal performance and superior quality.

These transformers are part of a complete line of Lean Power products from Schneider Electric. Our power conservation, management and monitoring products, systems, and services help to reduce energy consumption in business and industry environments.

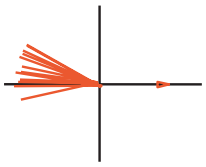
Table 1: Three-Phase Transformer Efficiency Levels

kVA	% Efficiency	kVA	% Efficiency
15.0	97.0	225.0	98.5
30.0	97.5	300.0	98.6
45.0	97.7	500.0	98.7
75.0	98.0	750.0	98.8
112.5	98.2	1000.0	98.9
150.0	98.3		

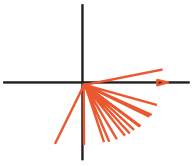
Temperature: 75 °C, 35% of full-load capacity



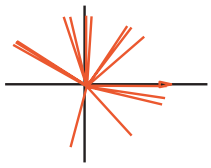
Office Load Harmonic Phase Angle Patterns



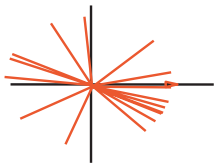
3rd Harmonic



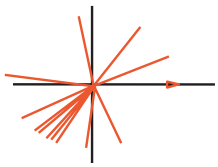
5th Harmonic



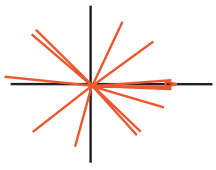
7th Harmonic



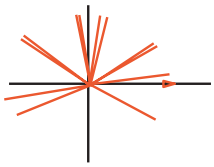
9th Harmonic



11th Harmonic



13th Harmonic

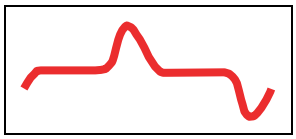


15th Harmonic

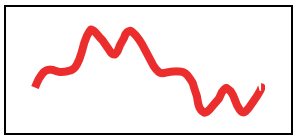
How Harmonic Mitigating Transformers Address Harmonics

- Add Source Impedance (3-5%)
  - — Limits Crest Factor
- Phase Shifting
  - — 30° Shift (Delta to Wye or Wye to ZigZag)
    Cancel – Triplen Harmonics (3^{rd}, 9^{th}, 15^{th}, …)

Secondary Current

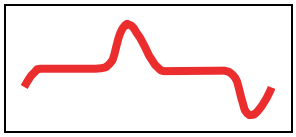


Primary Current

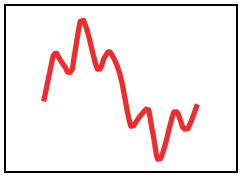


  - — 0° Shift (Delta to ZigZag)
    Cancel – Triplen Harmonics (3^{rd}, 9^{th}, 15^{th}, …)

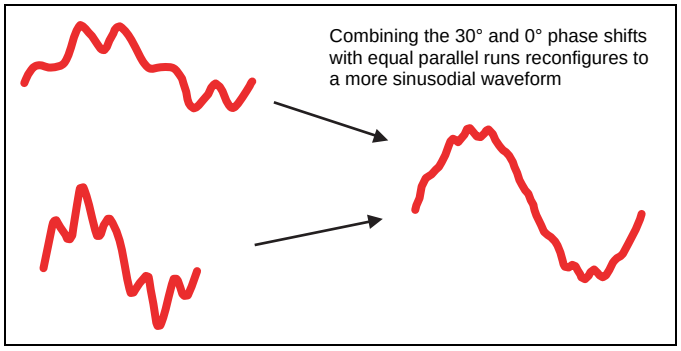
Secondary Current



Primary Current



Combination of 30° and 0° with Equal Parallel Runs



For maximum benefits from harmonic mitigating transformers, both 30° and 0° phase-shift-equivalent products should be incorporated into the system. When this is not possible due to floor space, load requirements, or economic conditions, either product can be incorporated into the system. To combine even more harmonics, the customer can add the +15° or -15°(45°) products to their application.

Another option to maximize the benefits of harmonic mitigating transformers is by tiering them through the system, for example, by using one harmonic mitigating transformer to feed another one.

Schneider Electric recommends using 30° phase-shift, delta to wye transformers in place of wye-zigzag transformers. 30° phase-shift, delta to wye transformers mitigate harmonics, and are widely recognized and accepted throughout the electrical industry.

Ordering Information

Refer to Tables 1–16 for three-phase transformer information. All transformers have copper windings and are rated for a 130 °C temperature rise.

Table 1: 480 V Delta Primary to 208Y/120 V Secondary with a 0° Phase Shift

kVA	Part Number	Enclosure[1] (Refer to pages 12–23)	Wiring Diagram	Weight Cu (lbs)	Primary Current			Secondary Current	
					Nameplate Rating	NEC Max. Rating 125%	NEC Max. Rating 250%	Nameplate Rating	NEC Max. Rating 125%
15	HM15T208NCU	17D	Figure 1 on page 24	Contact the factory.	18	25	45	41.7	60
30	HM30T208NCU	17D			36.1	45	90	83.3	110
45	HM45T208NCU	18D			54.2	70	125	124.9	175
75	HM75T208NCU	20D			90.3	125	225	208.2	275
112.5	HM112T208NCU	21D			135.5	175	300	312.3	400
150	HM150T208NCU	22D			180.6	225	450	416.4	600
225	HM225T208NCU	24D			271.0	300	600	624.6	800
300	HM300T208NCU	25D			361.3	450	900	832.7	1200

[1] NEMA Type 2 drip-proof enclosure. Weathershields available to upgrade the enclosures to NEMA Type 3R (suitable for outdoor use). Standard transformers up through 75 kVA three-phase and 75 kVA single-phase can be mounted directly on wall via mounting brackets.

Table 2: 480 V Delta Primary to 208Y/120 V Secondary with a +30° Phase Shift

kVA	Part Number	Enclosure[1] (Refer to pages 12–23)	Wiring Diagram	Weight Cu (lbs)	Primary Current			Secondary Current	
					Nameplate Rating	NEC Max. Rating 125%	NEC Max. Rating 250%	Nameplate Rating	NEC Max. Rating 125%
15	HM15T255NCU	17D	Figure 2 on page 25	Contact the factory.	18	25	45	41.7	60
30	HM30T255NCU	17D			36.1	45	90	83.3	110
45	HM45T255NCU	18D			54.2	70	125	124.9	175
75	HM75T255NCU	20D			90.3	125	225	208.2	275
112.5	HM112T255NCU	21D			135.5	175	300	312.3	400
150	HM150T255NCU	22D			180.6	225	450	416.4	600
225	HM225T255NCU	24D			271.0	300	600	624.6	800
300	HM300T255NCU	25D			361.3	450	900	832.7	1200

[1] NEMA Type 2 drip-proof enclosure. Weathershields available to upgrade the enclosures to NEMA Type 3R (suitable for outdoor use). Standard transformers up through 75 kVA three-phase and 75 kVA single-phase can be mounted directly on wall via mounting brackets.

Table 3: 480 V Delta Primary to 208Y/120 V Secondary with a +15° Phase Shift

kVA	Part Number	Enclosure[1] (Refer to pages 12–23)	Wiring Diagram	Weight Cu (lbs)	Primary Current			Secondary Current	
					Nameplate Rating	NEC Max. Rating 125%	NEC Max. Rating 250%	Nameplate Rating	NEC Max. Rating 125%
15	HM15T251NCU	17D	Figure 3 on page 26	Contact the factory.	18	25	45	41.7	60
30	HM30T251NCU	17D			36.1	45	90	83.3	110
45	HM45T251NCU	18D			54.2	70	125	124.9	175
75	HM75T251NCU	20D			90.3	125	225	208.2	275
112.5	HM112T251NCU	21D			135.5	175	300	312.3	400
150	HM150T251NCU	22D			180.6	225	450	416.4	600
225	HM225T251NCU	24D			271.0	300	600	624.6	800
300	HM300T251NCU	25D			361.3	450	900	832.7	1200

1 NEMA Type 2 drip-proof enclosure. Weathershields available to upgrade the enclosures to NEMA Type 3R (suitable for outdoor use). Standard transformers up through 75 kVA three-phase and 75 kVA single-phase can be mounted directly on wall via mounting brackets.

Table 4: 480 V Delta Primary to 208Y/120 V Secondary with a -15° Phase Shift

kVA	Part Number	Enclosure[1] (Refer to pages 12–23)	Wiring Diagram	Weight Cu (lbs)	Primary Current			Secondary Current	
					Nameplate Rating	NEC Max. Rating 125%	NEC Max. Rating 250%	Nameplate Rating	NEC Max. Rating 125%
15	HM15T259NCU	17D	Figure 4 on page 27	Contact the factory.	18	25	45	41.7	60
30	HM30T259NCU	17D			36.1	45	90	83.3	110
45	HM45T259NCU	18D			54.2	70	125	124.9	175
75	HM75T259NCU	20D			90.3	125	225	208.2	275
112.5	HM112T259NCU	21D			135.5	175	300	312.3	400
150	HM150T259NCU	22D			180.6	225	450	416.4	600
225	HM225T259NCU	24D			271.0	300	600	624.6	800
300	HM300T259NCU	25D			361.3	450	900	832.7	1200

1 NEMA Type 2 drip-proof enclosure. Weathershields available to upgrade the enclosures to NEMA Type 3R (suitable for outdoor use). Standard transformers up through 75 kVA three-phase and 75 kVA single-phase can be mounted directly on wall via mounting brackets.

Table 5: 600 V Delta Primary to 208Y/120 V Secondary with a 0° Phase Shift

kVA	Part Number	Enclosure[1] (Refer to pages 12–23)	Wiring Diagram	Weight Cu (lbs)	Primary Current			Secondary Current	
					Nameplate Rating	NEC Max. Rating 125%	NEC Max. Rating 250%	Nameplate Rating	NEC Max. Rating 125%
15	HM15T248NCU	17D	Figure 1 on page 24	Contact the factory.	14.5	25	35	41.7	60
30	HM30T248NCU	17D			28.9	40	70	83.3	110
45	HM45T248NCU	18D			43.4	60	100	124.9	175
75	HM75T248NCU	20D			72.3	100	175	208.2	275
112.5	HM112T248NCU	21D			108.4	150	250	312.3	400
150	HM150T248NCU	22D			144.5	200	350	416.4	600
225	HM225T248NCU	24D			216.8	275	500	624.6	800
300	HM300T248NCU	25D			289.0	400	700	832.7	1200

[1] NEMA Type 2 drip-proof enclosure. Weathershields available to upgrade the enclosures to NEMA Type 3R (suitable for outdoor use). Standard transformers up through 75 kVA three-phase and 75 kVA single-phase can be mounted directly on wall via mounting brackets.

Table 6: 600 V Delta Primary to 208Y/120 V Secondary with a +30° Phase Shift

kVA	Part Number	Enclosure[1] (Refer to pages 12–23)	Wiring Diagram	Weight Cu (lbs)	Primary Current			Secondary Current	
					Nameplate Rating	NEC Max. Rating 125%	NEC Max. Rating 250%	Nameplate Rating	NEC Max. Rating 125%
15	HM15T256NCU	17D	Figure 2 on page 25	Contact the factory.	14.5	25	35	41.7	60
30	HM30T256NCU	17D			28.9	40	70	83.3	110
45	HM45T256NCU	18D			43.4	60	100	124.9	175
75	HM75T256NCU	20D			72.3	100	175	208.2	275
112.5	HM112T256NCU	21D			108.4	150	250	312.3	400
150	HM150T256NCU	22D			144.5	200	350	416.4	600
225	HM225T256NCU	24D			216.8	275	500	624.6	800
300	HM300T256NCU	25D			289.0	400	700	832.7	1200

[1] NEMA Type 2 drip-proof enclosure. Weathershields available to upgrade the enclosures to NEMA Type 3R (suitable for outdoor use). Standard transformers up through 75 kVA three-phase and 75 kVA single-phase can be mounted directly on wall via mounting brackets.

Table 7: 600 V Delta Primary to 208Y/120 V Secondary with a +15° Phase Shift

kVA	Part Number	Enclosure[1] (Refer to pages 12–23)	Wiring Diagram	Weight Cu (lbs)	Primary Current			Secondary Current	
					Nameplate Rating	NEC Max. Rating 125%	NEC Max. Rating 250%	Nameplate Rating	NEC Max. Rating 125%
15	HM15T252NCU	17D	Figure 3 on page 26	Contact the factory.	14.5	25	35	41.7	60
30	HM30T252NCU	17D			28.9	40	70	83.3	110
45	HM45T252NCU	18D			43.4	60	100	124.9	175
75	HM75T252NCU	20D			72.3	100	175	208.2	275
112.5	HM112T252NCU	21D			108.4	150	250	312.3	400
150	HM150T252NCU	22D			144.5	200	350	416.4	600
225	HM225T252NCU	24D			216.8	275	500	624.6	800
300	HM300T252NCU	25D			289.0	400	700	832.7	1200

[1] NEMA Type 2 drip-proof enclosure. Weathershields available to upgrade the enclosures to NEMA Type 3R (suitable for outdoor use). Standard transformers up through 75 kVA three-phase and 75 kVA single-phase can be mounted directly on wall via mounting brackets.

Table 8: 600 V Delta Primary to 208Y/120 V Secondary with a -15° Phase Shift

kVA	Part Number	Enclosure[1] (Refer to pages 12–23)	Wiring Diagram	Weight Cu (lbs)	Primary Current			Secondary Current	
					Nameplate Rating	NEC Max. Rating 125%	NEC Max. Rating 250%	Nameplate Rating	NEC Max. Rating 125%
15	HM15T260NCU	17D	Figure 4 on page 27	Contact the factory.	14.5	25	35	41.7	60
30	HM30T260NCU	17D			28.9	40	70	83.3	110
45	HM45T260NCU	18D			43.4	60	100	124.9	175
75	HM75T260NCU	20D			72.3	100	175	208.2	275
112.5	HM112T260NCU	21D			108.4	150	250	312.3	400
150	HM150T260NCU	22D			144.5	200	350	416.4	600
225	HM225T260NCU	24D			216.8	275	500	624.6	800
300	HM300T260NCU	25D			289.0	400	700	832.7	1200

[1] NEMA Type 2 drip-proof enclosure. Weathershields available to upgrade the enclosures to NEMA Type 3R (suitable for outdoor use). Standard transformers up through 75 kVA three-phase and 75 kVA single-phase can be mounted directly on wall via mounting brackets.

Table 9: 240 V Delta Primary to 208Y/120 V Secondary with a 0° Phase Shift

kVA	Part Number	Enclosure[1] (Refer to pages 12–23)	Wiring Diagram	Weight Cu (lbs)	Primary Current			Secondary Current	
					Nameplate Rating	NEC Max. Rating 125%	NEC Max. Rating 250%	Nameplate Rating	NEC Max. Rating 125%
15	HM15T247NCU	17D	Figure 1 on page 24	Contact the factory.	36.1	50	90	41.7	60
30	HM30T247NCU	17D			72.2	100	175	83.3	110
45	HM45T247NCU	18D			108.3	150	250	124.9	175
75	HM75T247NCU	20D			180.4	250	450	208.2	275
112.5	HM112T247NCU	21D			270.6	350	600	312.3	400
150	HM150T247NCU	22D			360.8	500	800	416.4	600
225	HM225T247NCU	24D			541.3	700	1200	624.6	800
300	HM300T247NCU	25D			721.7	1000	1600	832.7	1200

[1] NEMA Type 2 drip-proof enclosure. Weathershields available to upgrade the enclosures to NEMA Type 3R (suitable for outdoor use). Standard transformers up through 75 kVA three-phase and 75 kVA single-phase can be mounted directly on wall via mounting brackets.

Table 10: 240 V Delta Primary to 208Y/120 V Secondary with a +30° Phase Shift

kVA	Part Number	Enclosure[1] (Refer to pages 12–23)	Wiring Diagram	Weight Cu (lbs)	Primary Current			Secondary Current	
					Nameplate Rating	NEC Max. Rating 125%	NEC Max. Rating 250%	Nameplate Rating	NEC Max. Rating 125%
15	HM15T254NCU	17D	Figure 2 on page 25	Contact the factory.	36.1	50	90	41.7	60
30	HM30T254NCU	17D			72.2	100	175	83.3	110
45	HM45T254NCU	18D			108.3	150	250	124.9	175
75	HM75T254NCU	20D			180.4	250	450	208.2	275
112.5	HM112T254NCU	21D			270.6	350	600	312.3	400
150	HM150T254NCU	22D			360.8	500	800	416.4	600
225	HM225T254NCU	24D			541.3	700	1200	624.6	800
300	HM300T254NCU	25D			721.7	1000	1600	832.7	1200

[1] NEMA Type 2 drip-proof enclosure. Weathershields available to upgrade the enclosures to NEMA Type 3R (suitable for outdoor use). Standard transformers up through 75 kVA three-phase and 75 kVA single-phase can be mounted directly on wall via mounting brackets.

Table 11: 240 V Delta Primary to 208Y/120 V Secondary with a +15° Phase Shift

kVA	Part Number	Enclosure[1] (Refer to pages 12–23)	Wiring Diagram	Weight Cu (lbs)	Primary Current			Secondary Current	
					Nameplate Rating	NEC Max. Rating 125%	NEC Max. Rating 250%	Nameplate Rating	NEC Max. Rating 125%
15	HM15T250NCU	17D	Figure 3 on page 26	Contact the factory.	36.1	50	90	41.7	60
30	HM30T250NCU	17D			72.2	100	175	83.3	110
45	HM45T250NCU	18D			108.3	150	250	124.9	175
75	HM75T250NCU	20D			180.4	250	450	208.2	275
112.5	HM112T250NCU	21D			270.6	350	600	312.3	400
150	HM150T250NCU	22D			360.8	500	800	416.4	600
225	HM225T250NCU	24D			541.3	700	1200	624.6	800
300	HM300T250NCU	25D			721.7	1000	1600	832.7	1200

1 NEMA Type 2 drip-proof enclosure. Weathershields available to upgrade the enclosures to NEMA Type 3R (suitable for outdoor use). Standard transformers up through 75 kVA three-phase and 75 kVA single-phase can be mounted directly on wall via mounting brackets.

Table 12: 240 V Delta Primary to 208Y/120 V Secondary with a -15° Phase Shift

kVA	Part Number	Enclosure[1] (Refer to pages 12–23)	Wiring Diagram	Weight Cu (lbs)	Primary Current			Secondary Current	
					Nameplate Rating	NEC Max. Rating 125%	NEC Max. Rating 250%	Nameplate Rating	NEC Max. Rating 125%
15	HM15T258NCU	17D	Figure 4 on page 27	Contact the factory.	36.1	50	90	41.7	60
30	HM30T258NCU	17D			72.2	100	175	83.3	110
45	HM45T258NCU	18D			108.3	150	250	124.9	175
75	HM75T258NCU	20D			180.4	250	450	208.2	275
112.5	HM112T258NCU	21D			270.6	350	600	312.3	400
150	HM150T258NCU	22D			360.8	500	800	416.4	600
225	HM225T258NCU	24D			541.3	700	1200	624.6	800
300	HM300T258NCU	25D			721.7	1000	1600	832.7	1200

1 NEMA Type 2 drip-proof enclosure. Weathershields available to upgrade the enclosures to NEMA Type 3R (suitable for outdoor use). Standard transformers up through 75 kVA three-phase and 75 kVA single-phase can be mounted directly on wall via mounting brackets.

Table 13: 208 V Delta Primary to 208Y/120 V Secondary with a 0° Phase Shift

kVA	Part Number	Enclosure[1] (Refer to pages 12–23)	Wiring Diagram	Weight Cu (lbs)	Primary Current			Secondary Current	
					Nameplate Rating	NEC Max. Rating 125%	NEC Max. Rating 250%	Nameplate Rating	NEC Max. Rating 125%
15	HM15T246NCU	17D	Figure 1 on page 24	Contact the factory.	41.7	60	100	41.7	60
30	HM30T246NCU	17D			83.3	110	200	83.3	110
45	HM45T246NCU	18D			124.9	175	300	124.9	175
75	HM75T246NCU	20D			208.2	275	500	208.2	275
112.5	HM112T246NCU	21D			312.3	400	700	312.3	400
150	HM150T246NCU	22D			416.4	600	1000	416.4	600
225	HM225T246NCU	24D			624.6	800	1200	624.6	800
300	HM300T246NCU	25D			832.7	1200	2000	832.7	1200

[1] NEMA Type 2 drip-proof enclosure. Weathershields available to upgrade the enclosures to NEMA Type 3R (suitable for outdoor use). Standard transformers up through 75 kVA three-phase and 75 kVA single-phase can be mounted directly on wall via mounting brackets.

Table 14: 208 V Delta Primary to 208Y/120 V Secondary with a +30° Phase Shift

kVA	Part Number	Enclosure[1] (Refer to pages 12–23)	Wiring Diagram	Weight Cu (lbs)	Primary Current			Secondary Current	
					Nameplate Rating	NEC Max. Rating 125%	NEC Max. Rating 250%	Nameplate Rating	NEC Max. Rating 125%
15	HM15T253NCU	17D	Figure 2 on page 25	Contact the factory.	41.7	60	100	41.7	60
30	HM30T253NCU	17D			83.3	110	200	83.3	110
45	HM45T253NCU	18D			124.9	175	300	124.9	175
75	HM75T253NCU	20D			208.2	275	500	208.2	275
112.5	HM112T253NCU	21D			312.3	400	700	312.3	400
150	HM150T253NCU	22D			416.4	600	1000	416.4	600
225	HM225T253NCU	24D			624.6	800	1200	624.6	800
300	HM300T253NCU	25D			832.7	1200	2000	832.7	1200

[1] NEMA Type 2 drip-proof enclosure. Weathershields available to upgrade the enclosures to NEMA Type 3R (suitable for outdoor use). Standard transformers up through 75 kVA three-phase and 75 kVA single-phase can be mounted directly on wall via mounting brackets.

Table 15: 208 V Delta Primary to 208Y/120 V Secondary with a +15° Phase Shift

kVA	Part Number	Enclosure[1] (Refer to pages 12–23)	Wiring Diagram	Weight Cu (lbs)	Primary Current			Secondary Current	
					Nameplate Rating	NEC Max. Rating 125%	NEC Max. Rating 250%	Nameplate Rating	NEC Max. Rating 125%
15	HM15T249NCU	17D	Figure 3 on page 26	Contact the factory.	41.7	60	100	41.7	60
30	HM30T249NCU	17D			83.3	110	200	83.3	110
45	HM45T249NCU	18D			124.9	175	300	124.9	175
75	HM75T249NCU	20D			208.2	275	500	208.2	275
112.5	HM112T249NCU	21D			312.3	400	700	312.3	400
150	HM150T249NCU	22D			416.4	600	1000	416.4	600
225	HM225T249NCU	24D			624.6	800	1200	624.6	800
300	HM300T249NCU	25D			832.7	1200	2000	832.7	1200

1 NEMA Type 2 drip-proof enclosure. Weathershields available to upgrade the enclosures to NEMA Type 3R (suitable for outdoor use). Standard transformers up through 75 kVA three-phase and 75 kVA single-phase can be mounted directly on wall via mounting brackets.

Table 16: 208 V Delta Primary to 208Y/120 V Secondary with a -15° Phase Shift

kVA	Part Number	Enclosure[1] (Refer to pages 12–23)	Wiring Diagram	Weight Cu (lbs)	Primary Current			Secondary Current	
					Nameplate Rating	NEC Max. Rating 125%	NEC Max. Rating 250%	Nameplate Rating	NEC Max. Rating 125%
15	HM15T257NCU	17D	Figure 4 on page 27	Contact the factory.	41.7	60	100	41.7	60
30	HM30T257NCU	17D			83.3	110	200	83.3	110
45	HM45T257NCU	18D			124.9	175	300	124.9	175
75	HM75T257NCU	20D			208.2	275	500	208.2	275
112.5	HM112T257NCU	21D			312.3	400	700	312.3	400
150	HM150T257NCU	22D			416.4	600	1000	416.4	600
225	HM225T257NCU	24D			624.6	800	1200	624.6	800
300	HM300T257NCU	25D			832.7	1200	2000	832.7	1200

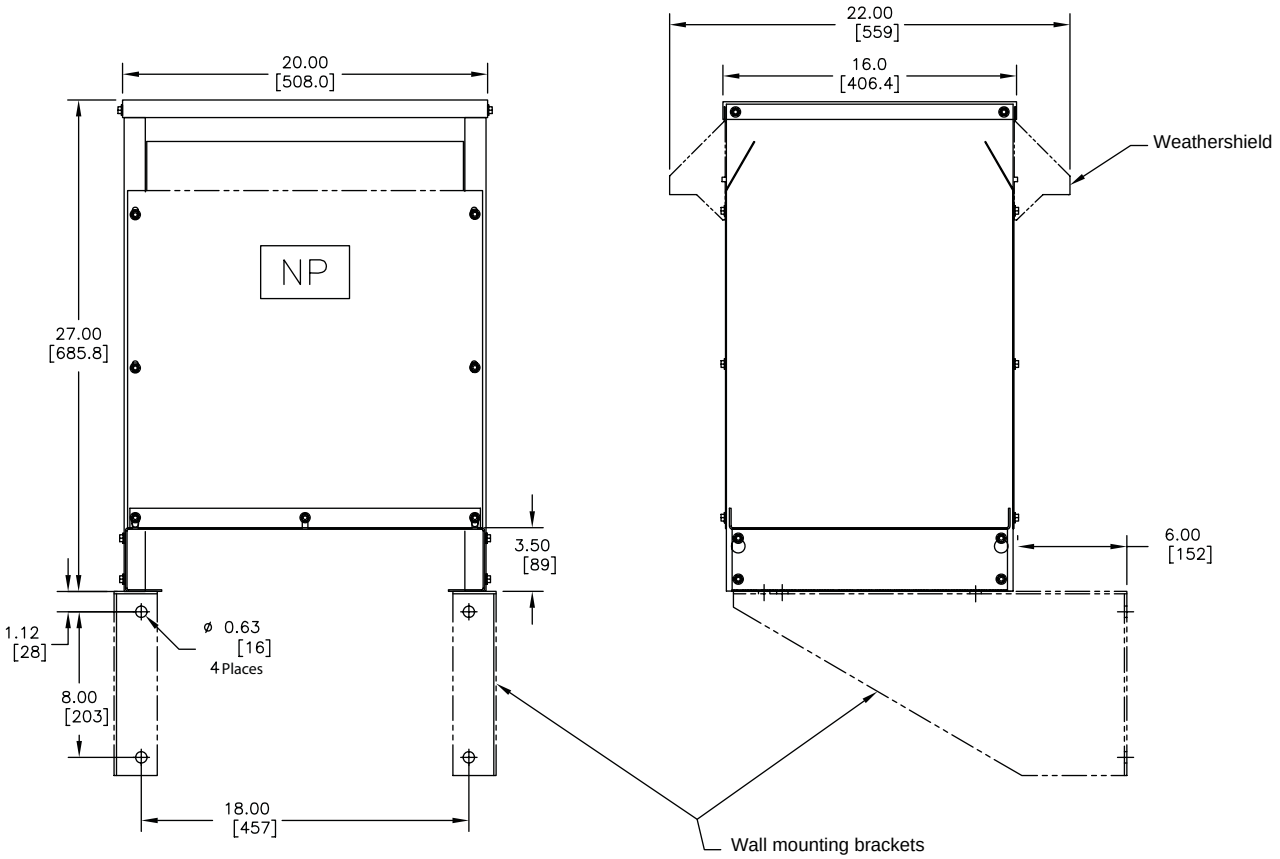
1 NEMA Type 2 drip-proof enclosure. Weathershields available to upgrade the enclosures to NEMA Type 3R (suitable for outdoor use). Standard transformers up through 75 kVA three-phase and 75 kVA single-phase can be mounted directly on wall via mounting brackets.

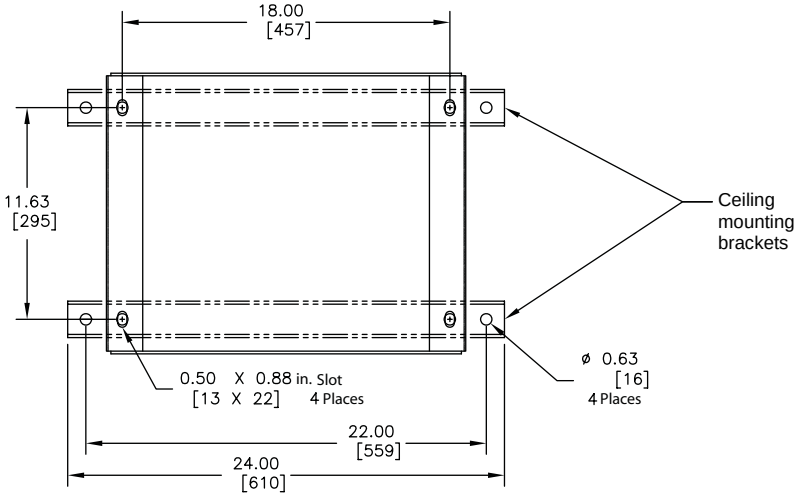
Enclosure Diagrams and Accessories

Enclosure Parts and Accessories

Refer to pages 12–23 for enclosure type and accessory information.

Enclosure 17D—Dry-Type Transformer

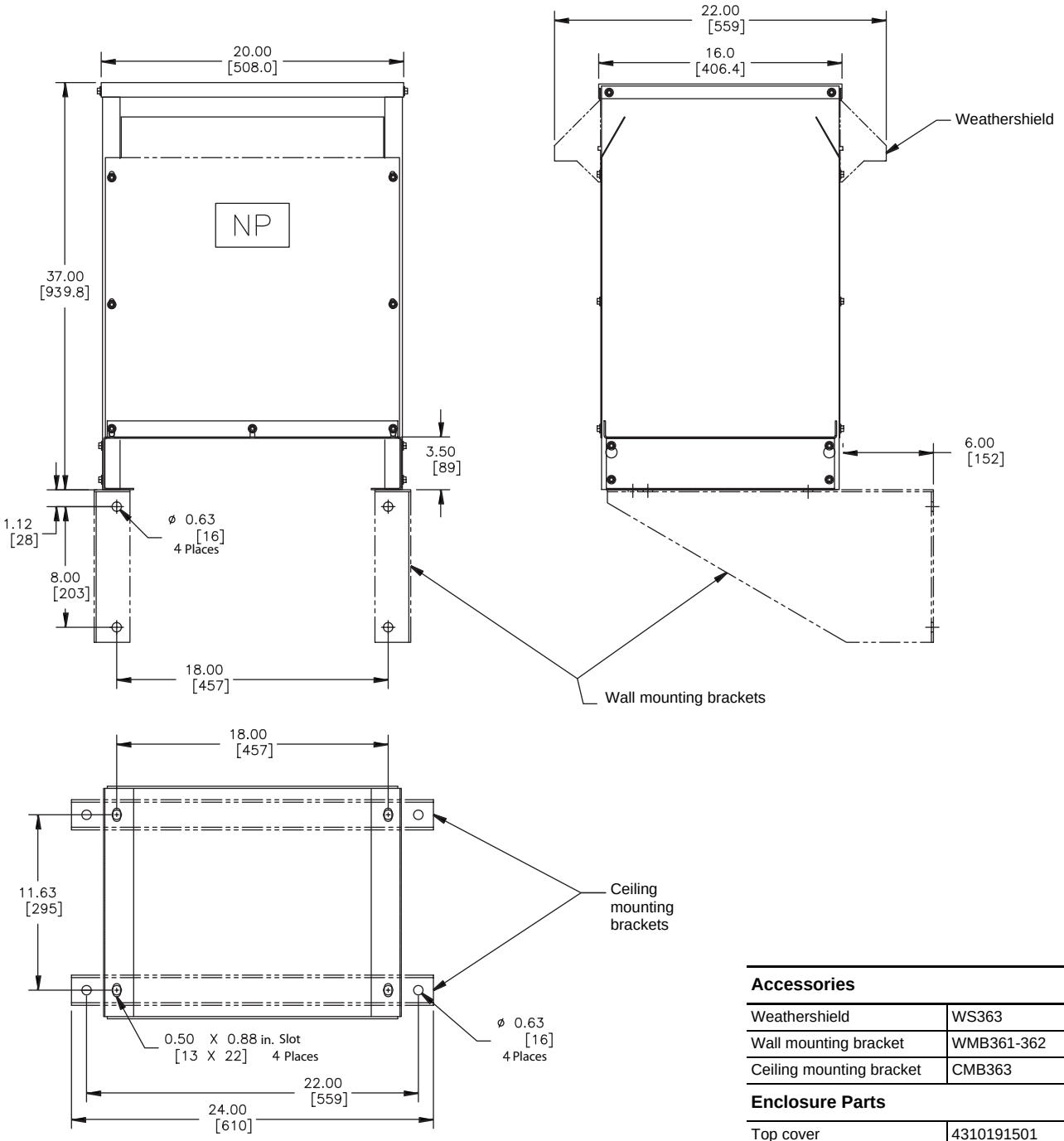




Accessories	
Weathershield	WS363
Wall mounting bracket	WMB361-362
Ceiling mounting bracket	CMB363
Enclosure Parts	
Top cover	4310191501
Front[1]	4310191601
Rear	4310191601
Sides (ends)	4310191701
Base	4310191401

[1] When replacing a front panel, specify the transformer part number and “with nameplate and labels” on the order.

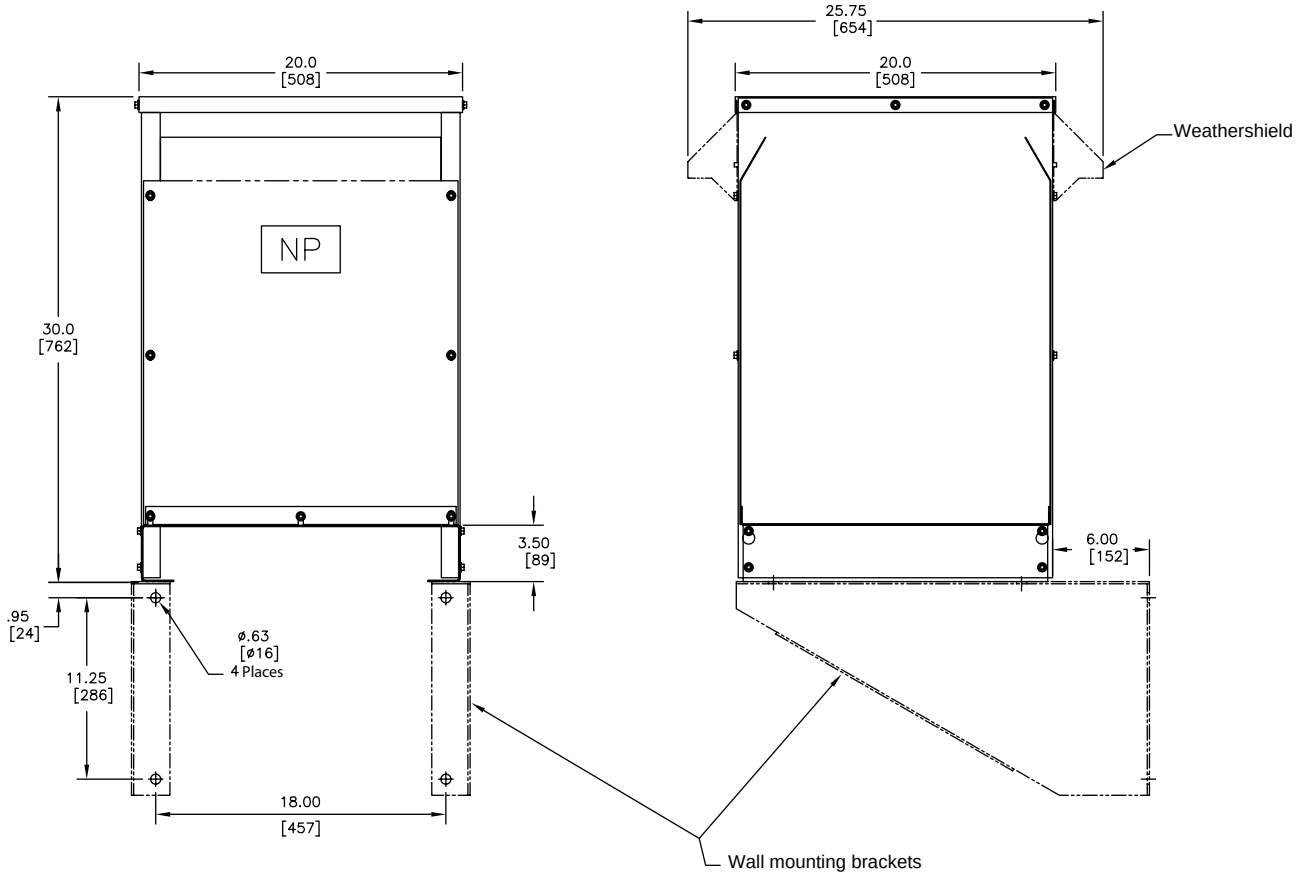
Enclosure 17H—Dry-Type Transformer

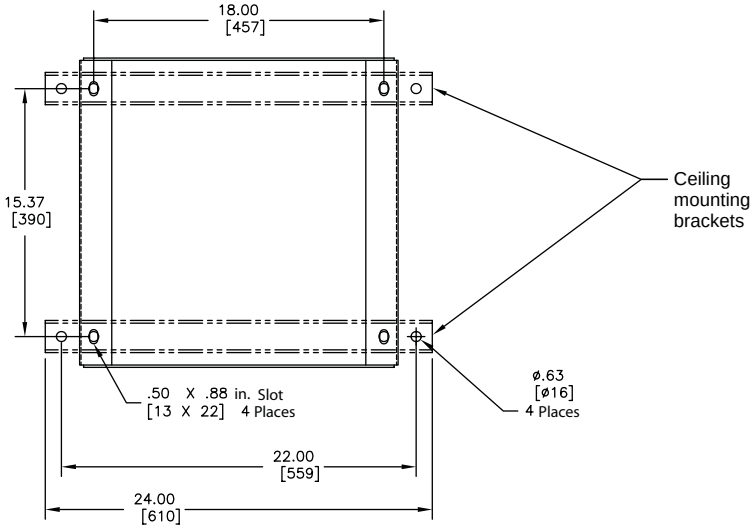


Accessories	
Weathershield	WS363
Wall mounting bracket	WMB361-362
Ceiling mounting bracket	CMB363
Enclosure Parts	
Top cover	4310191501
Front[1]	4305502003
Rear	4305502003
Sides (ends)	4310191702
Base	4310191401

[1] When replacing a front panel, specify the transformer part number and “with nameplate and labels” on the order.

Enclosure 18D—Dry-Type Transformer

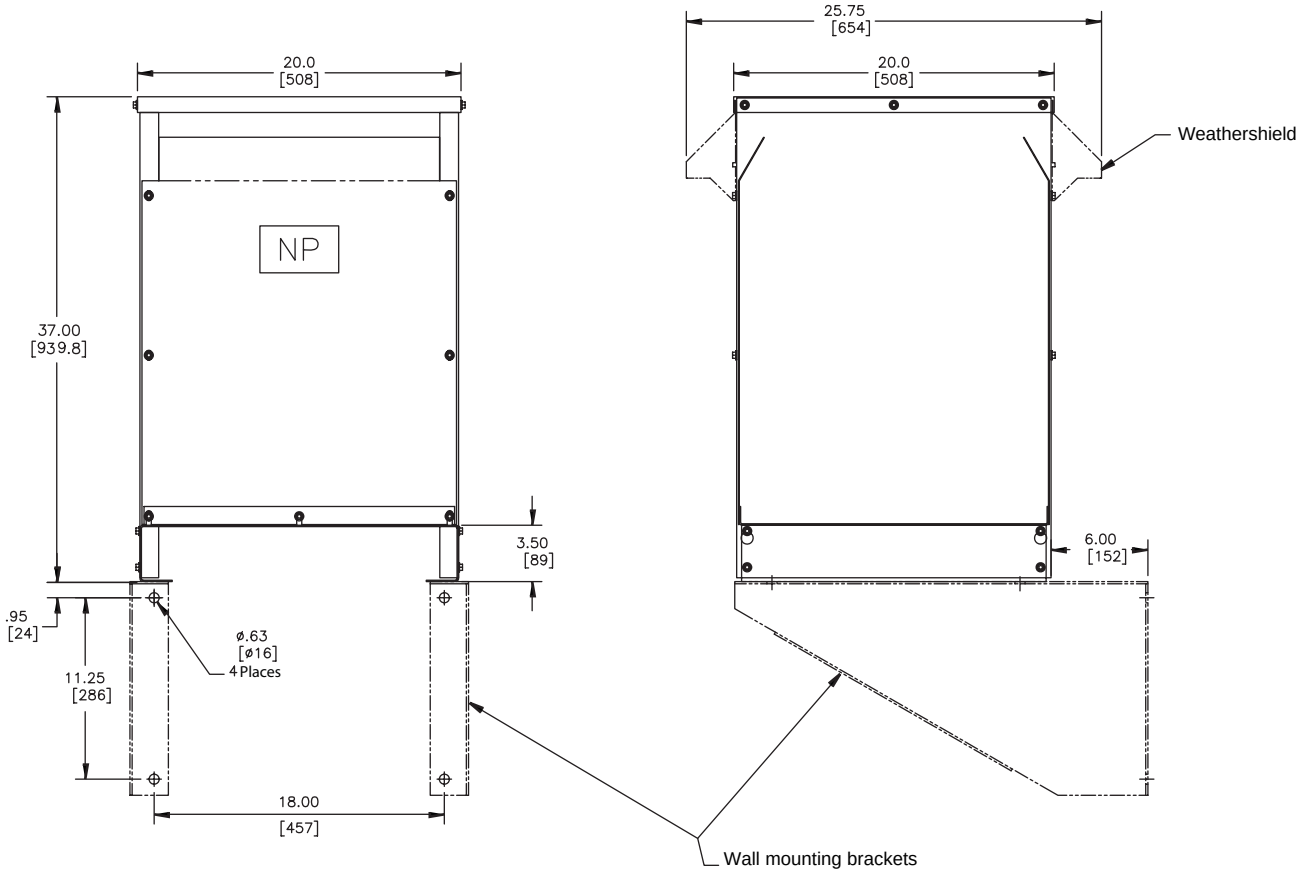


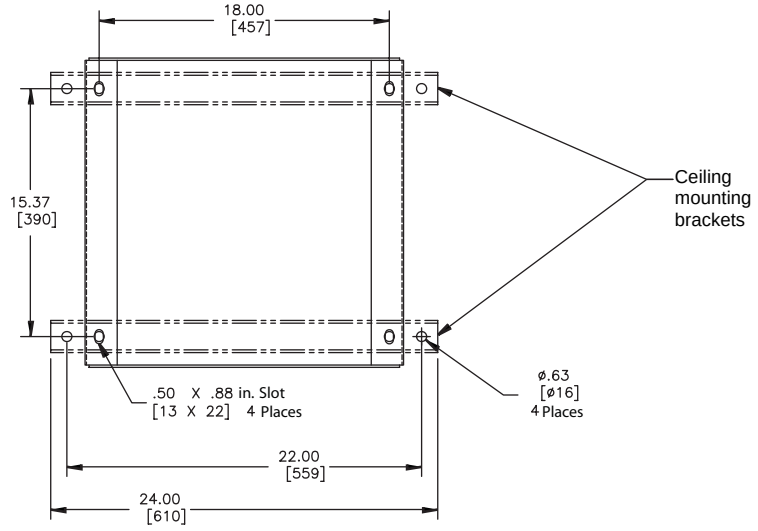


Accessories	
Weathershield	WS363
Wall mounting bracket	WMB363-364
Ceiling mounting bracket	CMB363
Enclosure Parts	
Top cover	4305502101
Front[1]	4305502002
Rear	4305502002
Sides (ends)	4305501001
Base	4305501801

[1] When replacing a front panel, specify the transformer part number and "with nameplate and labels" on the order.

Enclosure 18H—Dry-Type Transformer

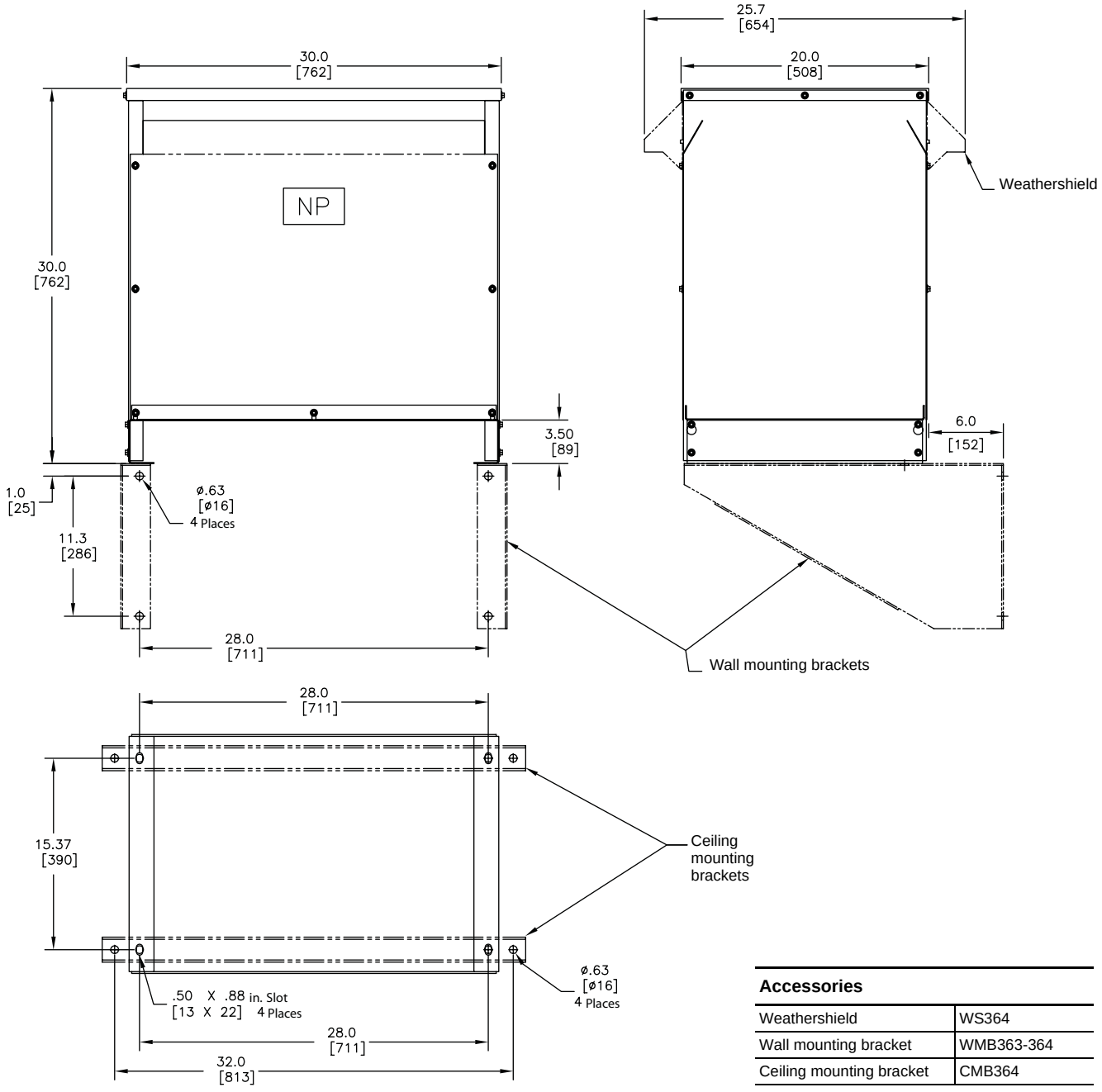




Accessories	
Weathershield	WS363
Wall mounting bracket	WMB363-364
Ceiling mounting bracket	CMB363
Enclosure Parts	
Top cover	4305502101
Front[1]	4305502003
Rear	4305502003
Sides (ends)	4310179701
Base	4305501801

[1] When replacing a front panel, specify the transformer part number and "with nameplate and labels" on the order.

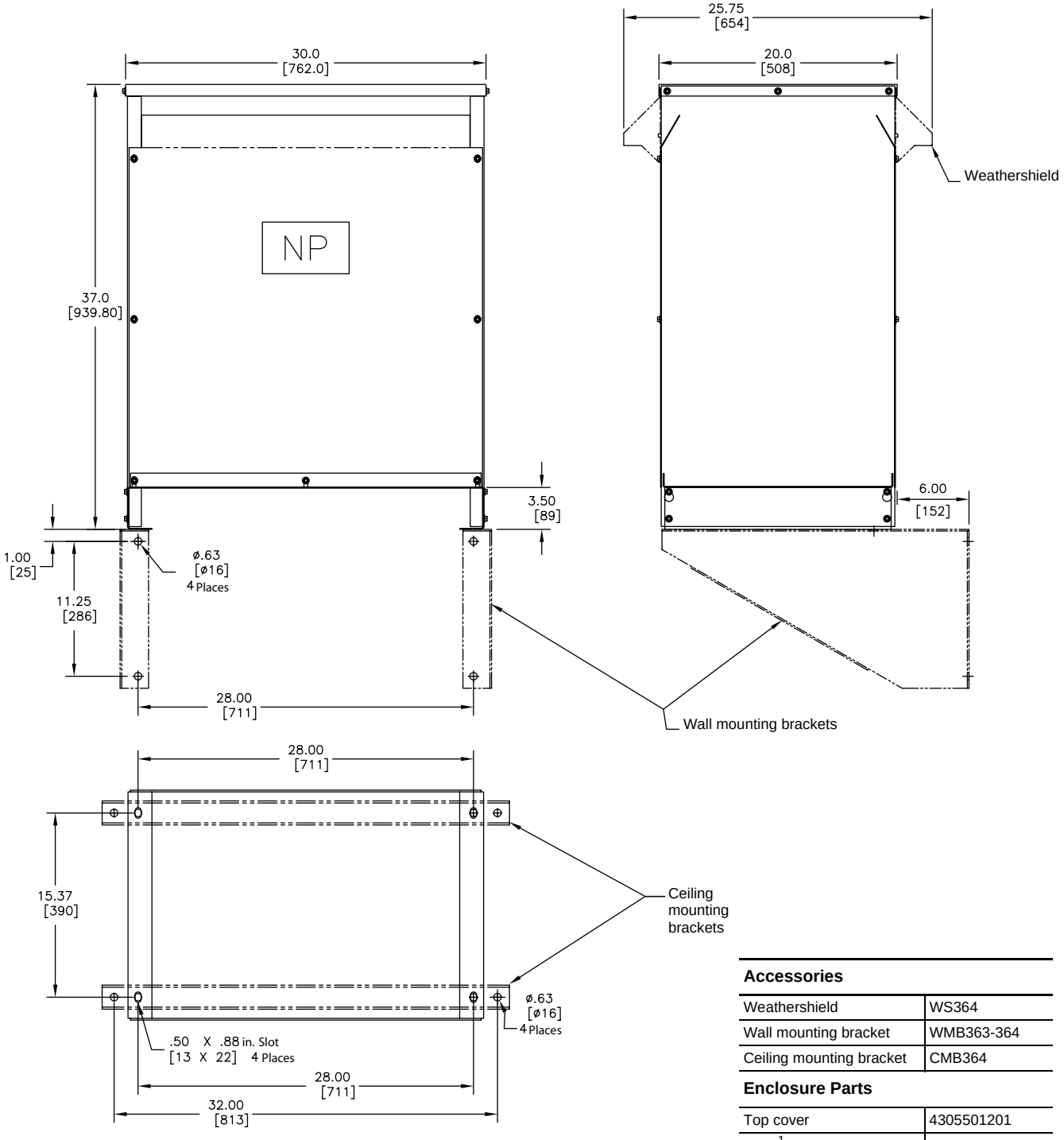
Enclosure 19D—Dry-Type Transformer



Accessories	
Weathershield	WS364
Wall mounting bracket	WMB363-364
Ceiling mounting bracket	CMB364
Enclosure Parts	
Top cover	4305501201
Front[1]	4305501101
Rear	4305501101
Sides (ends)	4305501001
Base	4305500901

[1] When replacing a front panel, specify the transformer part number and "with nameplate and labels" on the order.

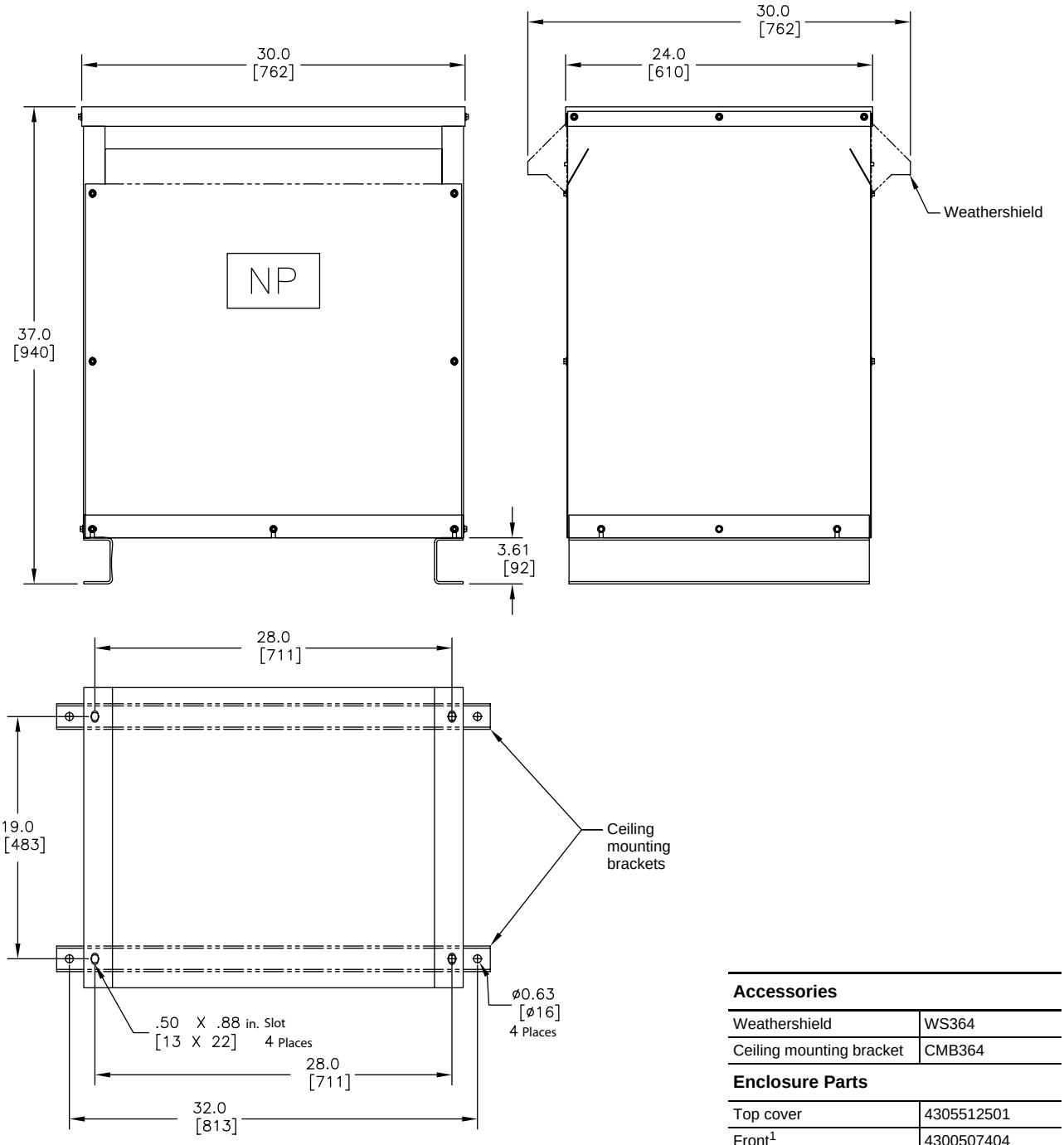
Enclosure 20D—Dry-Type Transformer



Accessories	
Weathershield	WS364
Wall mounting bracket	WMB363-364
Ceiling mounting bracket	CMB364
Enclosure Parts	
Top cover	4305501201
Front[1]	4310192201
Rear	4310192201
Sides (ends)	4310179701
Base	4305500901

[1] When replacing a front panel, specify the transformer part number and "with nameplate and labels" on the order.

Enclosure 21D—Dry-Type Transformer

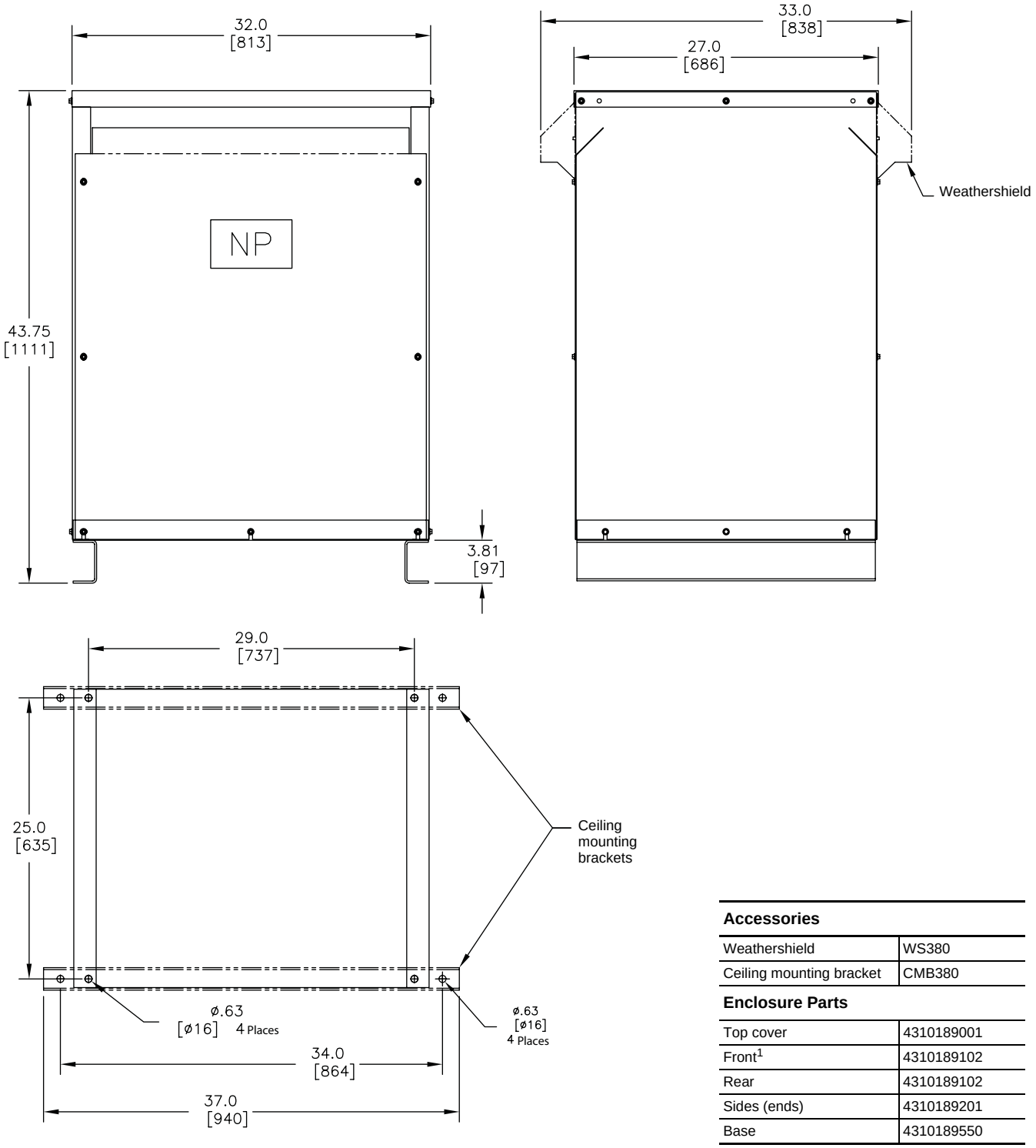


Accessories	
Weathershield	WS364
Ceiling mounting bracket	CMB364

Enclosure Parts	
Top cover	4305512501
Front[1]	4300507404
Rear	4300507404
Sides (ends)	4305512601
Base	4305512450

[1] When replacing a front panel, specify the transformer part number and “with nameplate and labels” on the order.

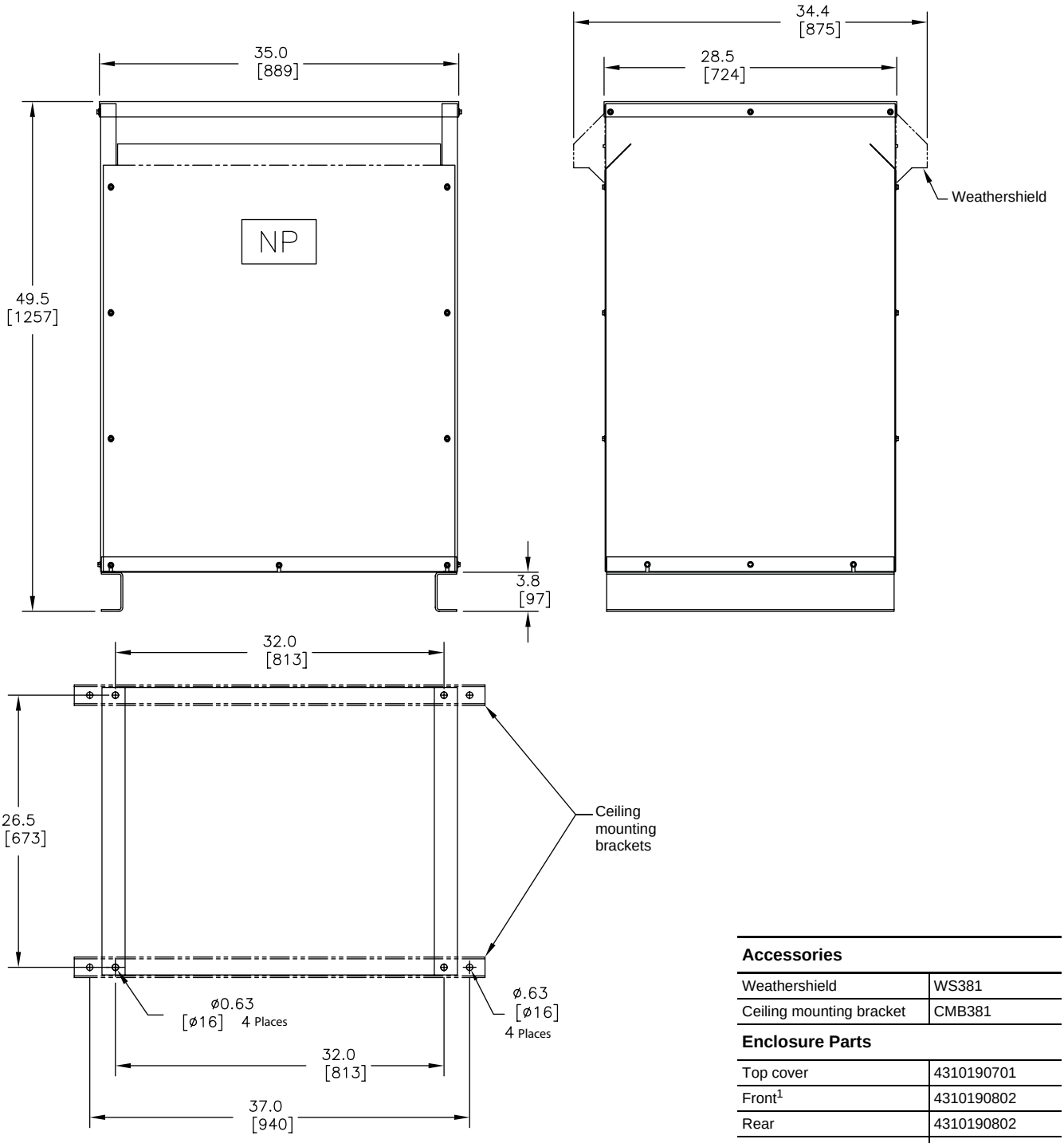
Enclosure 22D—Dry-Type Transformer



Accessories	
Weathershield	WS380
Ceiling mounting bracket	CMB380
Enclosure Parts	
Top cover	4310189001
Front[1]	4310189102
Rear	4310189102
Sides (ends)	4310189201
Base	4310189550

[1] When replacing a front panel, specify the transformer part number and "with nameplate and labels" on the order.

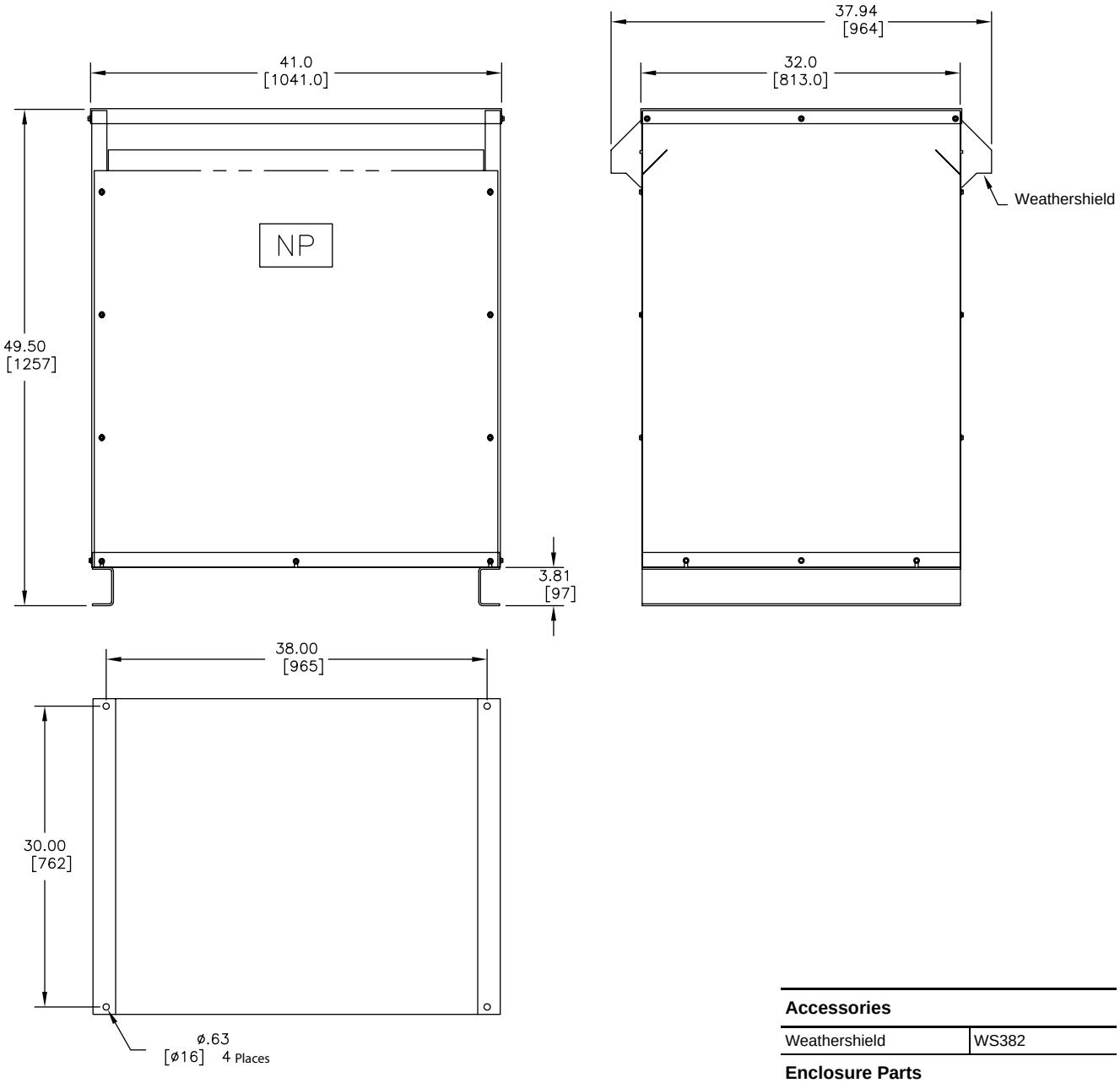
Enclosure 24D—Dry-Type Transformer



Accessories	
Weathershield	WS381
Ceiling mounting bracket	CMB381
Enclosure Parts	
Top cover	4310190701
Front[1]	4310190802
Rear	4310190802
Sides (ends)	4310190901
Base	4310191250

[1] When replacing a front panel, specify the transformer part number and “with nameplate and labels” on the order.

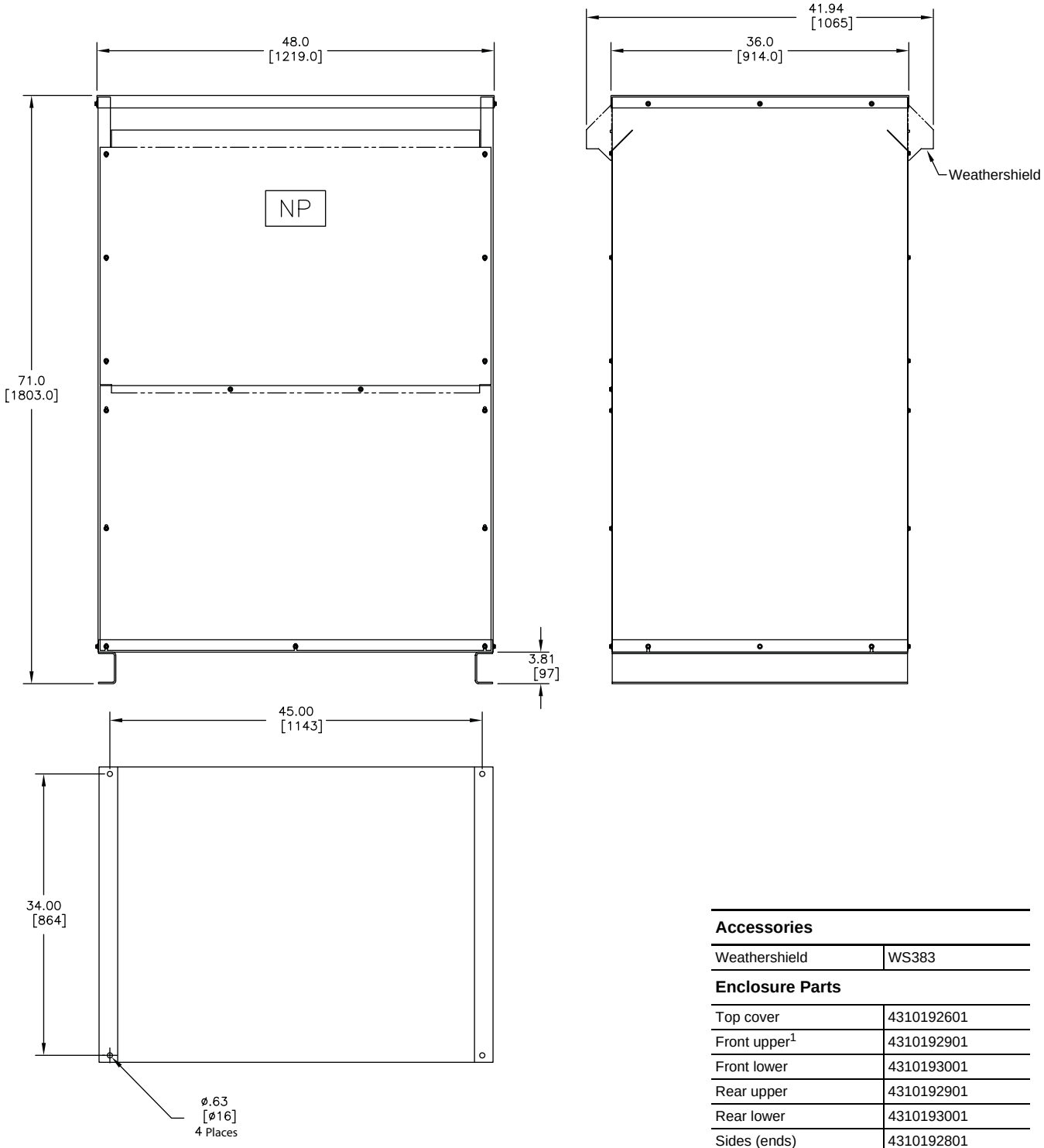
Enclosure 25D—Dry-Type Transformer



Accessories	
Weathershield	WS382
Enclosure Parts	
Top cover	4310189901
Front[1]	4310190001
Rear	4310190001
Sides (ends)	4310190101
Base	4310190450

[1] When replacing a front panel, specify the transformer part number and "with nameplate and labels" on the order.

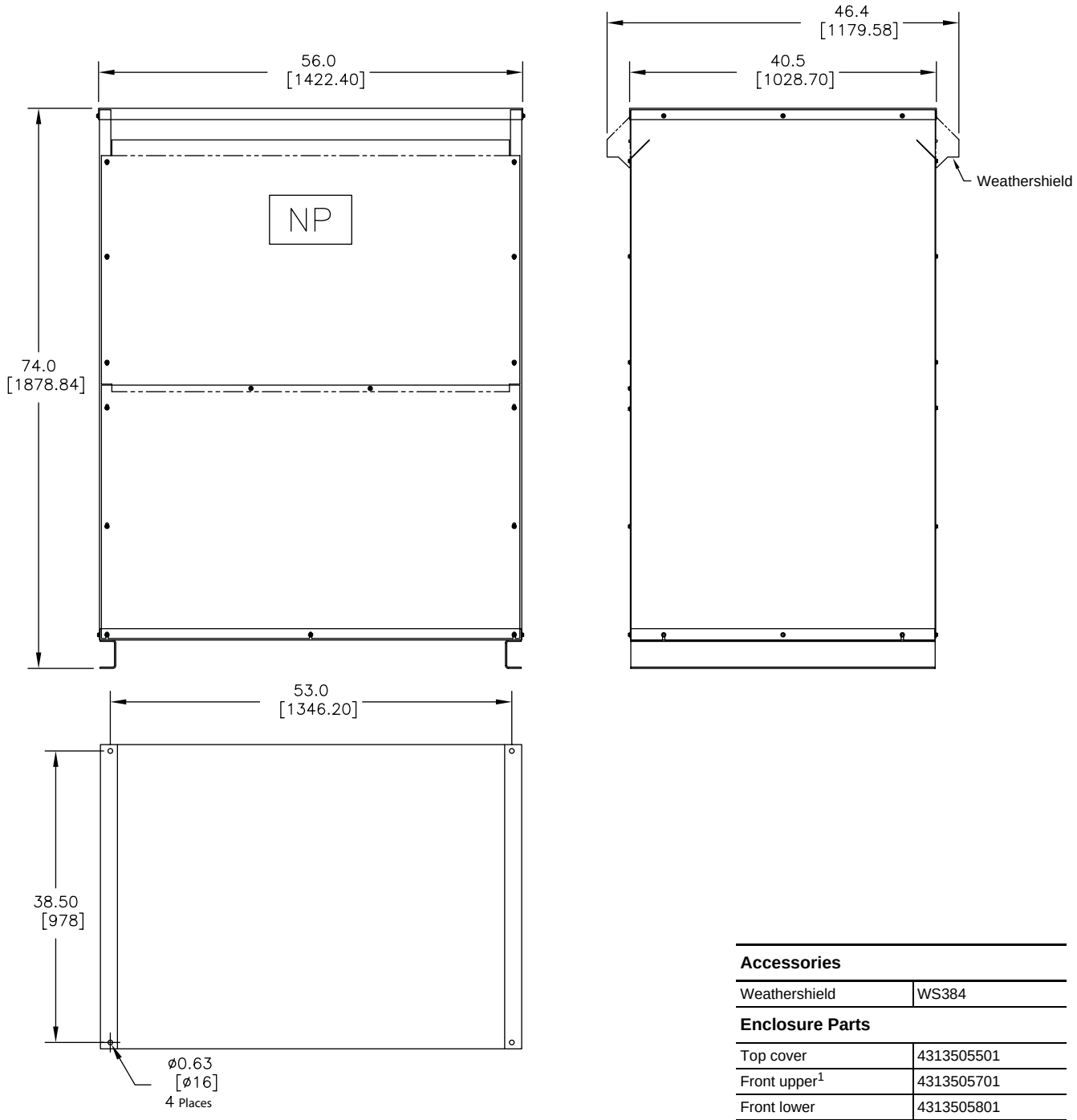
Enclosure 30D—Dry-Type Transformer



Accessories	
Weathershield	WS383
Enclosure Parts	
Top cover	4310192601
Front upper[1]	4310192901
Front lower	4310193001
Rear upper	4310192901
Rear lower	4310193001
Sides (ends)	4310192801
Base	4310193450

[1] When replacing a front upper panel, specify the transformer part number and "with nameplate and labels" on the order.

Enclosure 31D—Dry-Type Transformer



Accessories	
Weathershield	WS384
Enclosure Parts	
Top cover	4313505501
Front upper[1]	4313505701
Front lower	4313505801
Rear upper	4313505701
Rear lower	4313505801
Sides (ends)	4313505601
Base	4313506250

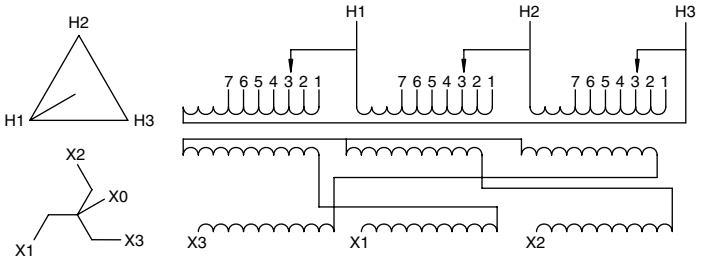
[1] When replacing a front upper panel, specify the transformer part number and "with nameplate and labels" on the order.

Wiring Diagrams

Refer to Figures 1–4 for wiring diagram information.

Figure 1: 0° Phase Shift Voltage Codes “248”, “208”, “247”, and “246”

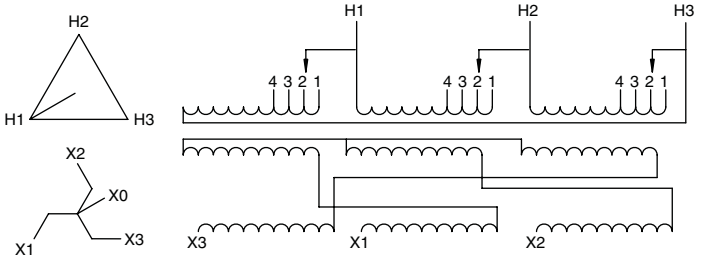
Voltage Codes 248 and 208



Voltage Code “248”		
Primary Voltage	**2–2.5% FCAN 4–2.5% FCBN Tap**	**Secondary Voltage**
630	1	208/120
615	2	
600	3	
585	4	
570	5	
555	6	
540	7	

Voltage Code “208”		
Primary Voltage	**2–2.5% FCAN 4–2.5% FCBN Tap**	**Secondary Voltage**
504	1	208/120
492	2	
480	3	
468	4	
456	5	
444	6	
432	7	

Voltage Codes 247and 246

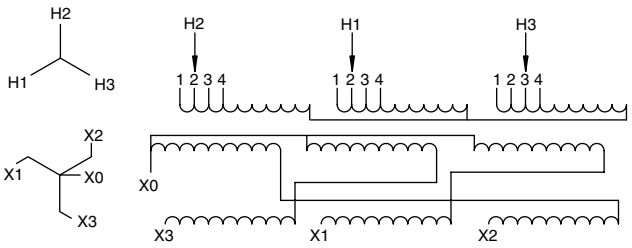


Voltage Code “247”		
Primary Voltage	**1 - 5% FCAN 2 - 5% FCBN Tap**	**Secondary Voltage**
252	1	208/120
240	2	
228	3	
216	4	

Voltage Code “246”		
Primary Voltage	**1 - 5% FCAN 2 - 5% FCBN Tap**	**Secondary Voltage**
218	1	208/120
208	2	
198	3	
188	4	

Figure 2: 30° Phase Shift Voltage Codes “256”, “255”, “254”, and “253”

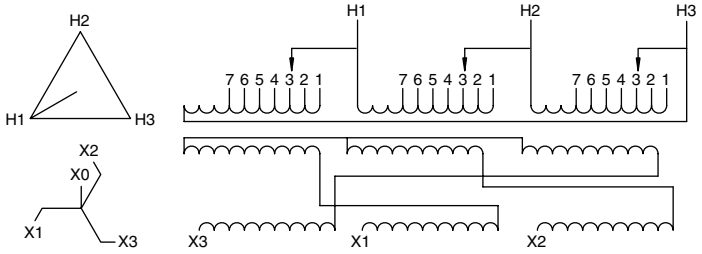
Voltage Codes 256, 255, 254, and 253



Voltage Code “256”		
Primary Voltage	**1 - 5% FCAN 2 - 5% FCBN Tap**	**Secondary Voltage**
630	1	208/120
600	2	
570	3	
540	4	
Voltage Code “255”		
Primary Voltage	**1 - 5% FCAN 2 - 5% FCBN Tap**	**Secondary Voltage**
504	1	208/120
480	2	
456	3	
432	4	
Voltage Code “254”		
Primary Voltage	**1 - 5% FCAN 2 - 5% FCBN Tap**	**Secondary Voltage**
252	1	208/120
240	2	
228	3	
216	4	
Voltage Code “253”		
Primary Voltage	**1 - 5% FCAN 2 - 5% FCBN Tap**	**Secondary Voltage**
218	1	208/120
208	2	
198	3	
188	4	

Figure 3: +15° Phase Shift Voltage Codes “252”, “251”, “250”, and “249”

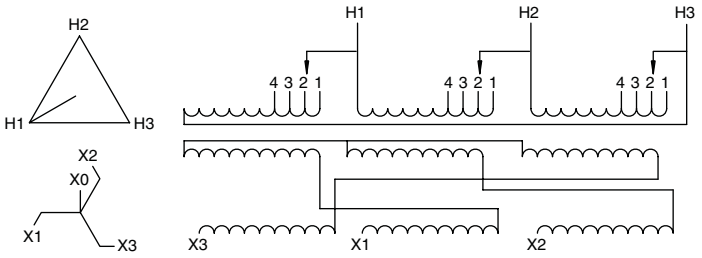
Voltage Codes 252 and 251



Voltage Code “252”		
Primary Voltage	**2–2.5% FCAN 4–2.5% FCBN Tap**	**Secondary Voltage**
630	1	208/120
615	2	
600	3	
585	4	
570	5	
555	6	
540	7	

Voltage Code “251”		
Primary Voltage	**2–2.5% FCAN 4–2.5% FCBN Tap**	**Secondary Voltage**
504	1	208/120
492	2	
480	3	
468	4	
456	5	
444	6	
432	7	

Voltage Codes 250 and 249

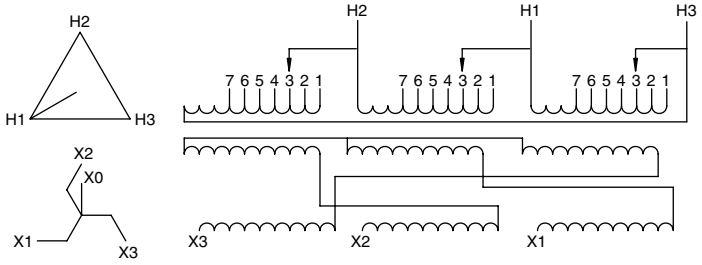


Voltage Code “250”		
Primary Voltage	**1 - 5% FCAN 2 - 5% FCBN Tap**	**Secondary Voltage**
252	1	208/120
240	2	
228	3	
216	4	

Voltage Code “249”		
Primary Voltage	**1 - 5% FCAN 2 - 5% FCBN Tap**	**Secondary Voltage**
218	1	208/120
208	2	
198	3	
188	4	

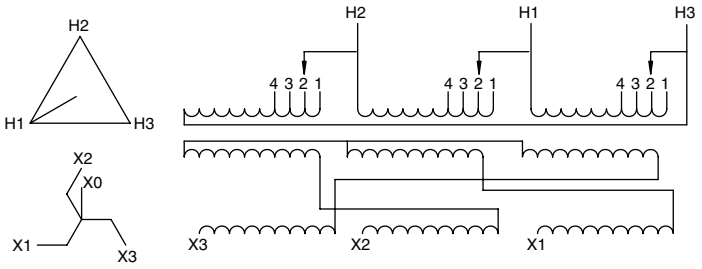
Figure 4: -15° Phase Shift Voltage Codes “260”, “259”, “258”, and “257”

Voltage Codes 260 and 259



Voltage Code “260”		
Primary Voltage	**2–2.5% FCAN 4–2.5% FCBN Tap**	**Secondary Voltage**
630	1	208/120
615	2	
600	3	
585	4	
570	5	
555	6	
540	7	
Voltage Code “259”		
Primary Voltage	**2–2.5% FCAN 4–2.5% FCBN Tap**	**Secondary Voltage**
504	1	208/120
492	2	
480	3	
468	4	
456	5	
444	6	
432	7	

Voltage Codes 258 and 257



Voltage Code “258”		
Primary Voltage	**1 - 5% FCAN 2 - 5% FCBN Tap**	**Secondary Voltage**
252	1	208/120
240	2	
228	3	
216	4	
Voltage Code “257”		
Primary Voltage	**1 - 5% FCAN 2 - 5% FCBN Tap**	**Secondary Voltage**
218	1	208/120
208	2	
198	3	
188	4	

NEC Reference: Installing and Connecting Transformers

450.9 Ventilation

Ventilation should be adequate to dispose of the transformer full load losses without creating a temperature rise that is in excess of the transformer rating.

Transformers with ventilated openings shall be installed so that the ventilated openings are not blocked by walls or other obstructions.

The required clearance shall be marked clearly on the transformer.

Square D® Energy Efficient transformers minimum clearance: 3 inches (76 mm).

450.13 Accessibility

All transformers and transformers vaults shall be readily accessible to qualified personnel for inspection and maintenance, or meet the requirements of (A) or (B).

(A) Open Installations

Dry-type transformers 600 volts, nominal, or less, located in the open on walls, columns, or structures, shall not be required to be readily accessible.

NEC 110.26(A)(3) other equipment that is associated with the electrical installation and is located above or below the electrical equipment shall be permitted to extend not more than 6 inches (152 mm).

NEC 110.26(E) Headroom —6.50 feet (1.8 m)

(B) Accessibility

Dry-type transformers 600 volts, nominal, or less and not exceeding 50 kVA shall be permitted in hollow spaces of buildings not permanently closed in by structure in accordance with the following:

- — Meet the ventilation requirements of Section 450.9.
- — Separated from combustible materials as outline in 450.21(A).

Transformers so installed shall not be required to be readily accessible.

Section 300-22 Wiring in Ducts, Plenums, and Other Air-Handling Space

(C) Other Space Used for Environmental Air

(2) Electric equipment with a metal enclosure, or with a nonmetallic enclosure listed for the use and having adequate fire-resistant and
low smoke-producing characteristics, and associated wiring material suitable for the ambient temperature shall be permitted to be installed in such other space unless prohibited elsewhere in this code. (450.13 above limits the kVA capacity for other space.)

FPN: The space over a hung ceiling used for environmental air-handling is an example of the type of other space to which this section applies.

450.21(B) Dry-Type Transformers Installed Indoors

Individual dry-type transformers of more than 112.5 kVA rating shall be installed in a transformer room of fire-resistant construction. Unless specified otherwise in this article, the term fire resistant means a construction having a minimum fire rating of 1 hour.

Exception 1 to this rule is relative to transformers with insulation Class 155 or higher and separations from combustible materials by space or a
fire-resistant, heat-insulation barrier.

Exception 2 is relative to transformers with insulation Class 155 or higher and of the completely enclosed type, except for ventilating openings.

All Square D Energy Efficient transformers are completely enclosed (except for ventilated openings) and use Class 220 insulation.

450.12 Terminal Wiring Space

Minimum wire bending space at fixed, 600 V and below terminals of transformer line and load connections shall be as required by 312.6.

Terminal:

- A) A conducting element of an equipment or a circuit intended for connection to an external conductor
- B) A device attached to a conductor to facilitate connection with another conductor

Schneider Electric Distance from Terminals to Bottom of the Compartment (Does not Include X0)

kVA (Three-Phase: 150 °C Rise	Inches (mm)
15	8-3/4 (222 mm)
30	8-3/4 (222 mm)
45	11 (279 mm)
75	15-1/2 (394 mm)
112.5	15-11/16 (398 mm)
150	18-6/16 (467 mm)
225	18-1/2 (470 mm)
300	18-6/16 (467 mm)
500	19-3/16 (487 mm)
750	19 (483 mm)

kVA (Single-Phase: 150 °C Rise	Inches (mm)
15	8-3/4 (222 mm)
25	8-3/4 (222 mm)
37.5	16-5/16 (414 mm)
50	16-5/16 (414 mm)
75	15-13/16 (402 mm)
100	18-5/16 (465 mm)
167	18-1/16 (459 mm)

Wire Range Part Numbers and Lug Kits

New primary and secondary mechanical lug kits from Schneider Electric can be coordinated with standard wire ranges for primary Square D® brand circuit breakers, safety switches, and panelboards. Refer to Tables 1–5 for a listing of mechanical lug kits and wire ranges. Also, refer to catalog no. 7400CT0501 for information regarding lug kit selection and conductor and mounting hardware torque requirements.

Table 1: Primary Mechanical Lug Kits

Part Number	Lugs per Kit	Wire Range (Aluminum or Copper)	Cap Screws		Handles Same Standard Wire Range[1]	
			Quantity	Size	Square D Circuit Breaker Frame	Square D Safety Switch Amperage Rating
DASKP100	3	1/0–14 STR.[2]	3	1/4 x 1 in	F-Frame, G-Frame Powerpact® Q [3], Powerpact H	100 A
DASKP250	3	350 kcmil–6 STR.	3	1/4 x 1 in	Powerpact Q [4], Powerpact J	200 A
DASKP400	3	600 kcmil–4 STR. (2) 250 kcmil–1/0 STR.[5]	3	1/4 x 1 ¾ in	Q4-Frame, L-Frame (400 A)	400 A
DASKP600	6	600 kcmil–4 STR. (2) 250 kcmil–1/0 STR.[5]	6	1/4 x 1 ¾ in	L-Frame (600 A)	600 A
DASKP1000	9	600 kcmil–2 STR.	9	3/8 x 2 in	Powerpact M	800 A
DASKP1200	12	600 kcmil–2 STR.	12	3/8 x 2 in	Powerpact P	1200 A

1 Does not handle the full range of safety switches, but is acceptable since extra capacity is for voltage drop. Normally, this is not an issue because of the NEC standards for primary protection distance on transformers.

2 STR. = Strand

3 Handles through 1/0, not 300 kcmil

4 Does not handle 8–14 STR

5 7400DASKP400 and 7400DASKP600 require two (2) wires per lug

Table 2: Secondary Mechanical Lug Kits

Part Number	Lugs per Kit	Wire Range (Aluminum or Copper)	Cap Screws		Handles Same Standard Wire Range [1]			Bonding Lugs	
			Qty.	Size	Square D Circuit Breaker Frame (Molded Case Switches)	Panelboards: -Main Lugs Main -Circuit Breaker	Safety Switch Amp. Rating	Lugs per Kit	Wire Range (Aluminum or Copper)
DASKS100	5	1/0–14 STR.[2]	6	1/4 x 1 in	F-Frame G-Frame Powerpact Q [3]	100 A NQOD 100 A I-Line®	100 A	1	2–14 STR.
DASKS250	5	350 kcmil–6 STR.	6	1/4 x 1 in	Q-Frame [4] Powerpact J	225 A NQOD 250 A NF 225 A I-Line	200 A	1	2–14 STR.
DASKS400	5	600 kcmil–4 STR. (2) 250 kcmil–1/0 STR.[5]	6	1/4 x 1 ¾ in	Q4-Frame L-Frame (400 A)	400 A NQOD [6] 400 A NF [6] 400 A I-Line	400 A	1	1/0–14 STR.
DASKS600	10	600 kcmil–2 STR.	11	1/4 x 1 ¾ in	L-Frame (600 A)	600 A NQOD (Main Lug Only) 600 A NF [6] 600 A I-Line	600 A	1	250 kcmil–6 STR.
DASKS1000	15	600 kcmil–2 STR.	16	3/8 x 2 in	Powerpact M	600 A NQOD (Main Breaker Only) 800 A NF 800 A I-Line	800 A	1	250 kcmil–6 STR.
DASKS1200	20	600 kcmil–2 STR.	21	3/8 x 2 in	Powerpact P	1200 A I-Line	1200 A	1	250 kcmil–6 STR.
DASKS2000	25	600 kcmil–2 STR.	26	3/8 x 2 in	—	—	—	1	350 kcmil–6 STR.

1 Does not handle the full range of safety switches, but is acceptable since extra capacity is for voltage drop. Normally, this is not an issue because of the NEC standards for primary protection distance on transformers.

2 STR. = Strand

3 Handles through 1/0 not 300 kcmil

4 Does not handle 8–14 STR

5 7400DASKS400 allows for two conductors (2) wire range supplied

6 (2) 250 kcmil not 300 kcmil (Main Lug) - (1) 600 kcmil not 750 kcmil (Main Lug)

Table 3: Three-Phase, 480 V Primary

kVA	Primary Voltage	Primary Current	NEC 450-3 (125%) Max. Amp. Ratings per NEC 240.6	Primary Lug Kit	NEC 450-3 (250%) Max. Amp. Ratings per NEC 240.6	Primary Lug Kit
15	480	18.06	25	DASKP100	45	DASKP100
30		36.13	50	DASKP100	90	DASKP100
45		54.19	70	DASKP100 DASKP250	125	DASKP250
75		90.32	125	DASKP250 DASKP400	225	DASKP250 DASKP400
112.5		135.48	175	DASKP250 DASKP400	300	DASKP250 DASKP400
150		180.64	225	DASKP250 DASKP400	450	DASKP600 [1]
225		270.95	350	DASKP400 DASKP600	600	DASKP600 DASKP1000 [1]
300		361.27	450	DASKP600	800	DASKP1000 [1]
500		602.12	800	DASKP1000	1200	DASKP1200 [1]

[1] Terminals are designed for back to back mounting.

Table 4: Three-Phase, 600 V Primary

kVA	Primary Voltage	Primary Current	NEC 450-3 (125%) Max. Amp. Ratings per NEC 240.6	Primary Lug Kit	NEC 450-3 (250%) Max. Amp. Ratings per NEC 240.6	Primary Lug Kit
15	600	14.45	20	DASKP100	45	DASKP100
30		28.90	40	DASKP100	90	DASKP100 DASKP250
45		43.35	60	DASKP100	125	DASKP250
75		72.25	100	DASKP100 DASKP250	225	DASKP250 DASKP400
112.5		108.38	150	DASKP250 DASKP400	300	DASKP250 DASKP400
150		144.51	200	DASKP250 DASKP400	450	DASKP400 DASKP600 [1]
225		216.76	300	DASKP400 DASKP600	600	DASKP600 DASKP1000 [1]
300		289.02	400	DASKP600	800	DASKP1000 [1]
500		481.70	700	DASKP1000	1200	DASKP1200 [1]

[1] Terminals are designed for back to back mounting.

Table 5: Three-Phase, 208Y/120 V Secondary

kVA	Secondary Voltage	Secondary Current	NEC 450-3 (125%) Max. Amp. Ratings per NEC 240.6	Secondary Lug Kit
15	208Y/120	41.69	60	DASKS100
30		83.37	110	DASKS250
45		125.06	175	DASKS250
75		208.43	300	DASKS250 DASKS400
112.5		312.64	400	DASKS400
150		416.85	600	DASKS600
225		625.28	800	DASKS1000 [1]
300		833.70	1200	DASKS1200
500		1389.51	2000	DASKS2000

[1] Terminals are designed for back to back mounting.

Lug from DASKS400 kit mounted on a EE75T3H X terminal

Specifications

Part 1 General

1.01 Section Includes

Dry-type distribution transformers for non-linear loads with three-phase primary and secondary voltages of 600 V and less, and capacity ratings of 15–1000 kVA.

NOTE: Paragraphs and words marked in brackets [ ] are alternates. Select only one.

1.02 References

A. NFPA 70—National Electrical Code
B. NEMA ST20
C. UL 1561
D. NEMA TP-1
E. NEMA TP-2
F. NEMA TP-3
G. ANSI C57.110

1.03 Submittals

Suppliers asking considerations as an approved equal shall submit complete, warranted performance data and physical dimensions for similar transformers. Data shall be submitted for each size specified, and shall be received by the consultant engineer no less that 10 days prior to the bid due date for consideration.

1.04 Standards

A. Transformers 750 kVA and smaller shall be listed by Underwriters Laboratories (UL).
B. Transformers shall conform to the requirements of ANSI/NFPA 70.
C. Transformers are to be manufactured and tested in accordance with NEMA ST20.
D. Transformers losses shall conform to NEMA TP1 requirements.
E. Transformer losses shall be tested in accord with NEMA TP2 procedures.
F. Transformers shall be labeled in accord with NEMA TP3 requirements.

Part 2 Products

2.01 Manufacturers

A. Transformers shall be as manufactured by Schneider Electric or approved equal.
B. Approved manufacturers shall be registered firms in accordance with ISO 9001: 1994 SIC 3612 (US), which is the design and manufacture of low voltage dry-type power, distribution, and specialty transformers.

2.02 Ratings information

A. All insulating materials are to exceed NEMA ST20 standards and be rated for a 200 °C, UL-component-recognized, insulation system.
B. Transformers 15 kVA and larger shall have a temperature rise rating of 130 °C above 40 °C ambient. Transformers 30 kVA and larger shall have a minimum of 1–5% FCAN and 2–5% FCBN full capacity primary taps. Exact voltages and taps to be as designated on the plans or the transformer schedule.
C. The maximum temperature of the top of the enclosure shall not exceed 50 °C rise above a 40 °C ambient.
D. Transformers shall be low-loss type with minimum efficiencies per NEMA TP-1 when operated at 35% of full load capacity. Efficiency shall be tested in accord with NEMA TP-2.

Three-Phase			
kVA	**% Efficiency**	**kVA**	**% Efficiency**
15.0	97.0	150.0	98.3
30.0	97.5	225.0	98.5
45.0	97.7	300.0	98.6
75.0	98.0	500.0	98.7
112.5	98.2	750.0	98.8

E. The transformer(s) shall supply phase shift of -15°, 0° , +15°, or 30°.
F. Zero sequence impedance for transformers with zigzag secondaries must not exceed 20% of the positive/negative sequence impedance.
G. Transformers shall have an impedance range of 3–7%, and shall have a minimum reactance of 2% in order to help reduce neutral current when supplying loads with large amounts of third harmonic current.
H. The transformer(s) shall be rated as indicated in the following schedule:
   — Identification number(s)
   — kVA rating
   — Voltages
   — Phase
   — Frequency

Option:

Transformers shall be supplied with quality, full width electrostatic shields resulting in a maximum effective coupling capacitance between the primary and secondary of 33 picofarads. With transformers connected under normal, loaded operating conditions, the attenuation of line noise and transients shall equal or exceed the following limits:

Frequency	**Line Noise and Transients Attentuation**	
	Common Mode	**Tranverse Mode**
0–1.5 kHZ	120 dB	—
1.5–10 kHZ	90 dB	52 dB
10–100 kHZ	65 dB	30 dB
100 kHZ–1 MHZ	40 dB	30 dB

2.03 Construction

A. Transformer coils shall be copper windings of continuous wound construction and shall be impregnated with non-hygroscopic, thermosetting varnish.

   — Aluminum windings are offered as an option

B. All cores to be constructed with low hysteresis and eddy current losses. Magnetic flux densities are to be kept well below the saturation point to prevent core overheating. Cores for transformers greater than 500 kVA shall be clamped using insulated bolts through the core laminations to ensure proper pressure throughout the length of the core. The completed core and coil shall be bolted to the base of the enclosure, but isolated by means of rubber, vibration-absorbing mounts. There shall be no metal-to-metal contact between the core and coil and the enclosure except for a flexible safety ground strap. Sound isolation systems requiring the complete removal of all fastening devices will not be acceptable.

C. The core of the transformer shall be visibly grounded to the enclosure by means of a flexible grounding conductor sized in accordance with applicable UL and National Electrical Code (NEC) standards.

D. The transformer enclosures shall be ventilated and be fabricated of heavy gauge, sheet steel construction. The entire enclosure shall be finished using a continuous process consisting of degreasing, cleaning, and phosphatizing, followed by electrostatic deposition of polymer polyester powder coating and baking cycle to provided uniform coating of all edges and surfaces. The coating shall be UL recognized for outdoor use. The coating color shall be ANSI 49.

2.04 Sound Levels

Sound levels shall be warranted by the manufacturer not to exceed the following:

kVA Rating	Sound Level	kVA Rating	Sound Level
15 to 50 kVA	45 dB	501 to 700 kVA	62 dB
51 to 150 kVA	50 dB	701 to 1000 kVA	64 dB
151 to 300 kVA	55 dB	1001 to 1500 kVA	65 dB
301 to 500 kVA	60 dB	1501 to 2000 kVA	66 dB

NOTE: Lower sound levels may be desirable for critical areas such as hospitals, schools, or office areas. Contact your local Schneider Electric representative for specific recommendations.

2.05 Optional Accessories

A. [Provide weathershields for units ID#_____ 750 kVA max.]

B. [Provide wall mounted brackets for units ID#_____ 75 kVA max.]

C. [Provide ceiling mounting brackets for units ID#_____ 150 kVA max.]

Part 3 Execution

3.01 Installation

Not used.

Schneider Electric USA
1010 Airpark Center Drive
Nashville, TN 37217 USA
1-888-Square D
1-888-778-2733
www.schneider-electric.us

Replaces 7400CT0301, 07/2003

07/2008