

HPS Fortress™

Encapsulated Transformers
for Commercial Applications

HPS Fortress™

Encapsulated Transformers for Commercial Applications

HPS Fortress™ is an innovative design that provides the ideal solution for commercial applications where **quality, ease of installation and low cost** are key.

All units are encapsulated with electrical grade silica sand and resin compounds, which completely enclose the core and coil to seal out moisture, airborne contaminants and eliminates corrosion and deterioration.

APPROVALS

- UL Listed, file No. E50394
- CSA Certified file No. LR3902



APPLICATIONS



Shopping Centers



Schools



Sports Complexes



Office Buildings



Lighting



Wastewater

STANDARD FEATURES

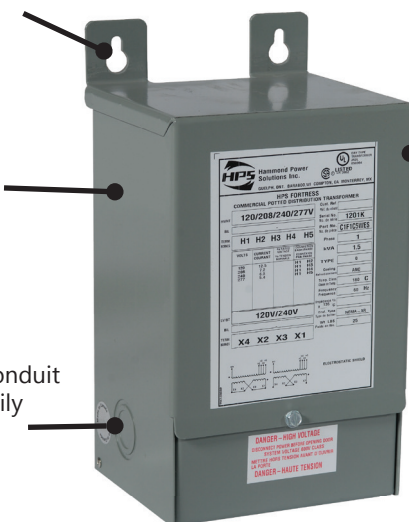
Features	Single Phase	Three Phase
Voltage Groups	9 standard voltage groups	8 standard voltage groups
Ratings	From 50VA to 37.5kVA	From 2kVA to 75kVA
Shield	Standard shield from 750VA and up	Standard shield on all units
Frequency	60Hz (50Hz standard on four voltage groups)	60Hz standard on all voltage groups
Connection	Standard via copper leads	
Enclosure	Type 3R	Type 3R (Type 4/12 with optional gasket kit installed)
Conduit Knockouts	For rear and side entry into an easily accessible and roomy wiring compartment.	
Installation	Wall mounting up to 25kVA, optional wall mounting bracket available on 37.5kVA. Wall mounting template supplied.	Wall mounting up to 9kVA, optional wall mounting bracket available on 15kVA, 30kVA and 45kVA. Wall mounting template supplied.
Warranty	All HPS standard catalog encapsulated transformers come with a 10 year limited* warranty	

*Please refer to the HPS standard Catalog Transformer Products Warranty for full details.

Installation made quick and easy with keyhole mounting slots and supplied wall mounting template.

Type 3R enclosure meets or exceeds listing criteria including NEMA and ANSI standards for indoor and outdoor applications.

Rear and side entry conduit knockouts into an easily accessible and roomy wiring compartment.



Totally enclosed to seal out moisture and airborne contaminants.

Easily accessible nameplate. All three phase units come standard with two nameplates. One on the front and one on the inside top cover.



All units are encapsulated with electrical grade silica sand and resin compounds.

*Picture displayed above is of a standard single phase unit.

Selection Tables

HPS Fortress™
Encapsulated Transformer for Commercial Applications



Hammond
Power Solutions

ALUMINUM SINGLE PHASE, TYPE 3R ENCLOSURE 120 X 240 Primary Volts 120/240 Secondary Volts



60 Hz

kVA	Catalog Number	Case Style	Approx. Dimensions Inches [mm]			Approx. Weight Lbs. [kg]	Mtg Type W - Wall F - Floor	Wiring Diagram
			Width	Depth	Height			
0.05	C1FC05EE*	NQ0	3.69 [93.73]	5.06 [128.53]	7.19 [182.63]	7.0 [3.2]	W	SCD1
0.10	C1FC10EE*	NQ0	3.69 [93.73]	5.06 [128.53]	7.19 [182.63]	7.0 [3.2]	W	SCD1
0.15	C1FC15EE*	NQ0	3.69 [93.73]	5.06 [128.53]	7.19 [182.63]	8.0 [3.6]	W	SCD1
0.25	C1FC25EE*	NQ0	3.69 [93.73]	5.06 [128.53]	7.19 [182.63]	9.0 [4.1]	W	SCD1
0.35	C1FC35EE*	NQ1	4.31 [109.48]	5.56 [141.23]	7.19 [182.63]	15.0 [6.8]	W	SCD1
0.50	C1FC50EE*	NQ1	4.31 [109.48]	5.56 [141.23]	7.19 [182.63]	16.0 [7.2]	W	SCD1
0.75	C1FC75EES*	NQ2	5.06 [128.53]	4.56 [115.83]	9.30 [236.22]	23.0 [10.4]	W	SCD1
1	C1F1C0EES*	NQ3	5.88 [149.36]	5.19 [131.83]	10.56 [268.23]	24.0 [10.8]	W	SCD1
1.5	C1F1C5EES*	NQ3	5.88 [149.36]	5.19 [131.83]	10.56 [268.23]	33.0 [14.9]	W	SCD1
2	C1F002EES*	NQ4	7.06 [179.33]	6.25 [158.75]	11.75 [298.45]	42.0 [18.9]	W	SCD1
3	C1F003EES*	NQ4	7.06 [179.33]	6.25 [158.75]	11.75 [298.45]	55.0 [24.8]	W	SCD1
5	C1F005EES	NQ5	10.00 [254.00]	7.75 [196.85]	17.25 [438.15]	96.0 [43.2]	W	SCD1
7.5	C1F007EES	NQ6A	12.25 [311.15]	9.25 [234.95]	17.63 [447.81]	148 [67]	W	SCD2
10	C1F010EES	NQ6	12.25 [311.15]	9.25 [234.95]	20.88 [530.36]	178 [80]	W	SCD2

*Copper wound unit

208 X 416 Primary Volts

120/240 Secondary Volts

60 Hz

kVA	Catalog Number	Case Style	Approx. Dimensions Inches [mm]			Approx. Weight Lbs. [kg]	Mtg Type W - Wall F - Floor	Wiring Diagram
			Width	Depth	Height			
0.05	C1FC05GE*	NQ0	3.69 [93.73]	5.06 [128.53]	7.19 [182.63]	7.0 [3.2]	W	SCD1
0.10	C1FC10GE*	NQ0	3.69 [93.73]	5.06 [128.53]	7.19 [182.63]	7.0 [3.2]	W	SCD1
0.15	C1FC15GE*	NQ0	3.69 [93.73]	5.06 [128.53]	7.19 [182.63]	8.0 [3.6]	W	SCD1
0.25	C1FC25GE*	NQ0	3.69 [93.73]	5.06 [128.53]	7.19 [182.63]	9.0 [4.1]	W	SCD1
0.35	C1FC35GE*	NQ1	4.31 [109.48]	5.56 [141.23]	7.19 [182.63]	15.0 [6.8]	W	SCD1
0.50	C1FC50GE*	NQ1	4.31 [109.48]	5.56 [141.23]	7.19 [182.63]	16.0 [7.2]	W	SCD1
0.75	C1FC75GES*	NQ2	5.06 [128.53]	4.56 [115.83]	9.30 [236.22]	23.0 [10.4]	W	SCD1
1	C1F1C0GES*	NQ3	5.88 [149.36]	5.19 [131.83]	10.56 [268.23]	24.0 [10.8]	W	SCD1
1.5	C1F1C5GES*	NQ3	5.88 [149.36]	5.19 [131.83]	10.56 [268.23]	33.0 [14.9]	W	SCD1
2	C1F002GES*	NQ4	7.06 [179.33]	6.25 [158.75]	11.75 [298.45]	42.0 [18.9]	W	SCD1
3	C1F003GES*	NQ4	7.06 [179.33]	6.25 [158.75]	11.75 [298.45]	55.0 [24.8]	W	SCD1
5	C1F005GES	NQ5	10.00 [254.00]	7.75 [196.85]	17.25 [438.15]	96.0 [43.2]	W	SCD1
7.5	C1F007GES	NQ6A	12.25 [311.15]	9.25 [234.95]	17.63 [447.81]	148 [67]	W	SCD2
10	C1F010GES	NQ6	12.25 [311.15]	9.25 [234.95]	20.88 [530.36]	178 [80]	W	SCD2

*Copper wound unit

120/208/240/277 Primary Volts

120/240 Secondary Volts

60 Hz

kVA	Catalog Number	Case Style	Approx. Dimensions Inches [mm]			Approx. Weight Lbs. [kg]	Mtg Type W - Wall F - Floor	Wiring Diagram
			Width	Depth	Height			
0.05	C1FC05WE*	NQ0	3.69 [93.73]	5.06 [128.53]	7.19 [182.63]	7.0 [3.2]	W	SCD41
0.10	C1FC10WE*	NQ0	3.69 [93.73]	5.06 [128.53]	7.19 [182.63]	7.0 [3.2]	W	SCD41
0.15	C1FC15WE*	NQ0	3.69 [93.73]	5.06 [128.53]	7.19 [182.63]	8.0 [3.6]	W	SCD41
0.25	C1FC25WE*	NQ1	4.31 [109.48]	5.56 [141.23]	7.19 [182.63]	10.0 [4.5]	W	SCD41
0.35	C1FC35WE*	NQ2	5.06 [128.53]	4.56 [115.83]	9.30 [236.22]	17.0 [7.7]	W	SCD41
0.50	C1FC50WE*	NQ2	5.06 [128.53]	4.56 [115.83]	9.30 [236.22]	25.0 [11.3]	W	SCD41
0.75	C1FC75WES*	NQ2	5.06 [128.53]	4.56 [115.83]	9.30 [236.22]	23.0 [10.4]	W	SCD41
1	C1F1C0WES*	NQ3	5.88 [149.36]	5.19 [131.83]	10.56 [268.23]	24.0 [10.8]	W	SCD41
1.5	C1F1C5WES*	NQ3	5.88 [149.36]	5.19 [131.83]	10.56 [268.23]	37.0 [16.7]	W	SCD41
2	C1F002WES*	NQ4	7.06 [179.33]	6.25 [158.75]	11.75 [298.45]	52.0 [23.4]	W	SCD41
3	C1F003WES*	NQ5	10.00 [254.00]	7.75 [196.85]	17.25 [438.15]	65.0 [29.3]	W	SCD2
5	C1F005WES	NQ5	10.00 [254.00]	7.75 [196.85]	17.25 [438.15]	108 [49]	W	SCD2
7.5	C1F007WES	NQ6	12.25 [311.15]	9.25 [234.95]	20.88 [530.36]	171 [77]	W	SCD2
10	C1F010WES	NQ6	12.25 [311.15]	9.25 [234.95]	20.88 [530.36]	183 [82]	W	SCD2

*Copper wound unit

Selection Tables

HPS Fortress™

Encapsulated Transformer for Commercial Applications

ALUMINUM WOUND SINGLE PHASE, TYPE 3R ENCLOSURE



240 X 480 Primary Volts

120/240 Secondary Volts

60 Hz

kVA	Catalog Number	Case Style	Approx. Dimensions Inches [mm]			Approx. Weight Lbs. [kg]	Mtg Type W - Wall F - Floor	Wiring Diagram
			Width	Depth	Height			
0.05	C1FC05LE*	NQ0	3.69 [93.73]	5.06 [128.53]	7.19 [182.63]	7.0 [3.2]	W	SCD1
0.10	C1FC10LE*	NQ0	3.69 [93.73]	5.06 [128.53]	7.19 [182.63]	7.0 [3.2]	W	SCD1
0.15	C1FC15LE*	NQ0	3.69 [93.73]	5.06 [128.53]	7.19 [182.63]	8.0 [3.6]	W	SCD1
0.25	C1FC25LE*	NQ1	4.31 [109.48]	5.56 [141.23]	7.19 [182.63]	9.0 [4.1]	W	SCD1
0.35	C1FC35LE*	NQ1	4.31 [109.48]	5.56 [141.23]	7.19 [182.63]	15.0 [6.8]	W	SCD1
0.50	C1FC50LE*	NQ1	4.31 [109.48]	5.56 [141.23]	7.19 [182.63]	16.0 [7.2]	W	SCD1
0.75	C1FC75LES*	NQ2	5.06 [128.53]	4.56 [115.83]	9.30 [236.22]	23.0 [10.4]	W	SCD1
1	C1F1COLES*	NQ3	5.88 [149.36]	5.19 [131.83]	10.56 [268.23]	24.0 [10.8]	W	SCD1
1.5	C1F1C5LES*	NQ3	5.88 [149.36]	5.19 [131.83]	10.56 [268.23]	33.0 [14.9]	W	SCD1
2	C1F002LES*	NQ4	7.06 [179.33]	6.25 [158.75]	11.75 [298.45]	42.0 [18.9]	W	SCD1
3	C1F003LES*	NQ4	7.06 [179.33]	6.25 [158.75]	11.75 [298.45]	55.0 [24.8]	W	SCD1
5	C1F005LES	NQ5	10.00 [254.00]	7.75 [196.85]	17.25 [438.15]	115 [52]	W	SCD1
7.5	C1F007LES	NQ6A	12.25 [311.15]	9.25 [234.95]	17.63 [447.81]	148 [67]	W	SCD2
10	C1F010LES	NQ6	12.25 [311.15]	9.25 [234.95]	20.88 [530.36]	179 [81]	W	SCD2
15	C1F015LES	NQ7	14.50 [368.30]	10.75 [273.05]	21.38 [543.06]	265 [119]	W	SCD2
25	C1F025LES	NQ8	14.50 [368.30]	10.75 [273.05]	27.38 [695.46]	385 [173]	W	SCD2
37.5	C1F037LES	NQS10	21.88 [555.76]	18.50 [469.90]	31.00 [787.40]	598 [269]	F or W*	SCD2

*Copper wound unit

277 Primary Volts

120/240 Secondary Volts

50/60 Hz

kVA	Catalog Number	Case Style	Approx. Dimensions Inches [mm]			Approx. Weight Lbs. [kg]	Mtg Type W - Wall F - Floor	Wiring Diagram
			Width	Depth	Height			
0.05	C1FC05CE*	NQ0	3.69 [93.73]	5.06 [128.53]	7.19 [182.63]	7.0 [3.2]	W	SCD4
0.10	C1FC10CE*	NQ0	3.69 [93.73]	5.06 [128.53]	7.19 [182.63]	7.0 [3.2]	W	SCD4
0.15	C1FC15CE*	NQ0	3.69 [93.73]	5.06 [128.53]	7.19 [182.63]	8.0 [3.6]	W	SCD4
0.25	C1FC25CE*	NQ0	3.69 [93.73]	5.06 [128.53]	7.19 [182.63]	9.0 [4.1]	W	SCD4
0.35	C1FC35CE*	NQ2	5.06 [128.53]	4.56 [115.83]	9.30 [236.22]	15.0 [6.8]	W	SCD4
0.50	C1FC50CE*	NQ2	5.06 [128.53]	4.56 [115.83]	9.30 [236.22]	15.0 [6.8]	W	SCD4
0.75	C1FC75CES*	NQ2	5.06 [128.53]	4.56 [115.83]	9.30 [236.22]	23.0 [10.4]	W	SCD4
1	C1F1C0CES*	NQ3	5.88 [149.36]	5.19 [131.83]	10.56 [268.23]	24.0 [10.8]	W	SCD4
1.5	C1F1C5CES*	NQ3	5.88 [149.36]	5.19 [131.83]	10.56 [268.23]	33.0 [14.9]	W	SCD4
2	C1F002CES*	NQ4	7.06 [179.33]	6.25 [158.75]	11.75 [298.45]	42.0 [18.9]	W	SCD4
3	C1F003CES*	NQ4	7.06 [179.33]	6.25 [158.75]	11.75 [298.45]	55.0 [24.8]	W	SCD4
5	C1F005CES	NQ5	10.00 [254.00]	7.75 [196.85]	17.25 [438.15]	115 [52]	W	SCD4
7.5	C1F007CES	NQ6A	12.25 [311.15]	9.25 [234.95]	17.63 [447.81]	148 [67]	W	SCD2
10	C1F010CES	NQ6	12.25 [311.15]	9.25 [234.95]	20.88 [530.36]	178 [80]	W	SCD2

*Copper wound unit

277/480 Primary Volts

208/277 Secondary Volts

50/60 Hz

kVA	Catalog Number	Case Style	Approx. Dimensions Inches [mm]			Approx. Weight Lbs. [kg]	Mtg Type W - Wall F - Floor	Wiring Diagram
			Width	Depth	Height			
0.05	C1FC05HR*	NQ0	3.69 [93.73]	5.06 [128.53]	7.19 [182.63]	7.0 [3.2]	W	SCD42
0.10	C1FC10HR*	NQ0	3.69 [93.73]	5.06 [128.53]	7.19 [182.63]	8.0 [3.6]	W	SCD42
0.15	C1FC15HR*	NQ0	3.69 [93.73]	5.06 [128.53]	7.19 [182.63]	11.0 [5.0]	W	SCD42
0.25	C1FC25HR*	NQ1	4.31 [109.48]	5.56 [141.23]	7.19 [182.63]	12.0 [5.4]	W	SCD42
0.35	C1FC35HR*	NQ2	5.06 [128.53]	4.56 [115.83]	9.30 [236.22]	15.0 [6.8]	W	SCD42
0.50	C1FC50HR*	NQ2	5.06 [128.53]	4.56 [115.83]	9.30 [236.22]	18.0 [8.1]	W	SCD42
0.75	C1FC75HRS*	NQ3	5.88 [149.36]	5.19 [131.83]	10.56 [268.23]	25.0 [11.3]	W	SCD42
1	C1F1COHRS*	NQ3	5.88 [149.36]	5.19 [131.83]	10.56 [268.23]	31.0 [14.0]	W	SCD42
1.5	C1F1C5HRS*	NQ4	7.06 [179.33]	6.25 [158.75]	11.75 [298.45]	39.0 [17.6]	W	SCD42
2	C1F002HRS*	NQ4	7.06 [179.33]	6.25 [158.75]	11.75 [298.45]	54.0 [24.3]	W	SCD42
3	C1F003HRS*	NQ5	10.00 [254.00]	7.75 [196.85]	17.25 [438.15]	80.0 [36.0]	W	SCD43
5	C1F005HRS	NQ5	10.00 [254.00]	7.75 [196.85]	17.25 [438.15]	156 [70]	W	SCD43
7.5	C1F007HRS	NQ6	12.25 [311.15]	9.25 [234.95]	20.88 [530.36]	188 [85]	W	SCD43
10	C1F010HRS	NQ6	12.25 [311.15]	9.25 [234.95]	20.88 [530.36]	179 [81]	W	SCD43

*Copper wound unit

Selection Tables

HPS Fortress™

Encapsulated Transformer for Commercial Applications

ALUMINUM WOUND SINGLE PHASE, TYPE 3R ENCLOSURE



347/380 Primary Volts



120/240 Secondary Volts

50/60 Hz

kVA	Catalog Number	Case Style	Approx. Dimensions Inches [mm]			Approx. Weight Lbs. [kg]	Mtg Type W - Wall F - Floor	Wiring Diagram
			Width	Depth	Height			
0.05	C1FC05JE*	NQ0	3.69 [93.73]	5.06 [128.53]	7.19 [182.63]	7.0 [3.2]	W	SCD33
0.10	C1FC10JE*	NQ0	3.69 [93.73]	5.06 [128.53]	7.19 [182.63]	7.0 [3.2]	W	SCD33
0.15	C1FC15JE*	NQ0	3.69 [93.73]	5.06 [128.53]	7.19 [182.63]	8.0 [3.6]	W	SCD33
0.25	C1FC25JE*	NQ0	3.69 [93.73]	5.06 [128.53]	7.19 [182.63]	9.0 [4.1]	W	SCD33
0.35	C1FC35JE*	NQ1	4.31 [109.48]	5.56 [141.23]	7.19 [182.63]	14.0 [6.3]	W	SCD33
0.50	C1FC50JE*	NQ1	4.31 [109.48]	5.56 [141.23]	7.19 [182.63]	14.0 [6.3]	W	SCD33
0.75	C1FC75JE*	NQ2	5.06 [128.53]	4.56 [115.83]	9.30 [236.22]	23.0 [10.4]	W	SCD33
1	C1F1C0JES*	NQ3	5.88 [149.36]	5.19 [131.83]	10.56 [268.23]	32.0 [14.4]	W	SCD33
1.5	C1F1C5JES*	NQ3	5.88 [149.36]	5.19 [131.83]	10.56 [268.23]	35.0 [15.8]	W	SCD33
2	C1F002JES*	NQ4	7.06 [179.33]	6.25 [158.75]	11.75 [298.45]	51.0 [23.0]	W	SCD33
3	C1F003JES*	NQ5	10.00 [254.00]	7.75 [196.85]	17.25 [438.15]	98.0 [44.1]	W	SCD44
5	C1F005JES	NQ5	10.00 [254.00]	7.75 [196.85]	17.25 [438.15]	120 [54]	W	SCD44
7.5	C1F007JES	NQ6A	12.25 [311.15]	9.25 [234.95]	17.63 [447.81]	162 [73]	W	SCD44
10	C1F010JES	NQ6	12.25 [311.15]	9.25 [234.95]	20.88 [530.36]	194 [87]	W	SCD44

*Copper wound unit

600 Primary Volts

120/240 Secondary Volts

60 Hz

kVA	Catalog Number	Case Style	Approx. Dimensions Inches [mm]			Approx. Weight Lbs. [kg]	Mtg Type W - Wall F - Floor	Wiring Diagram
			Width	Depth	Height			
0.05	C1FC05PE*	NQ0	3.69 [93.73]	5.06 [128.53]	7.19 [182.63]	7.0 [3.2]	W	SCD4
0.10	C1FC10PE*	NQ0	3.69 [93.73]	5.06 [128.53]	7.19 [182.63]	7.0 [3.2]	W	SCD4
0.15	C1FC15PE*	NQ0	3.69 [93.73]	5.06 [128.53]	7.19 [182.63]	8.0 [3.6]	W	SCD4
0.25	C1FC25PE*	NQ0	3.69 [93.73]	5.06 [128.53]	7.19 [182.63]	9.0 [4.1]	W	SCD4
0.35	C1FC35PE*	NQ1	4.31 [109.48]	5.56 [141.23]	7.19 [182.63]	15.0 [6.8]	W	SCD4
0.50	C1FC50PE*	NQ1	4.31 [109.48]	5.56 [141.23]	7.19 [182.63]	16.0 [7.2]	W	SCD4
0.75	C1FC75PES*	NQ2	5.06 [128.53]	4.56 [115.83]	9.30 [236.22]	23.0 [10.4]	W	SCD4
1	C1F1C0PES*	NQ3	5.88 [149.36]	5.19 [131.83]	10.56 [268.23]	24.0 [10.8]	W	SCD4
1.5	C1F1C5PES*	NQ3	5.88 [149.36]	5.19 [131.83]	10.56 [268.23]	33.0 [14.9]	W	SCD4
2	C1F002PES*	NQ4	7.06 [179.33]	6.25 [158.75]	11.75 [298.45]	42.0 [18.9]	W	SCD4
3	C1F003PES*	NQ4	7.06 [179.33]	6.25 [158.75]	11.75 [298.45]	55.0 [24.8]	W	SCD4
5	C1F005PES	NQ5	10.00 [254.00]	7.75 [196.85]	17.25 [438.15]	120 [54]	W	SCD4
7.5	C1F007PES	NQ6A	12.25 [311.15]	9.25 [234.95]	17.63 [447.81]	148 [67]	W	SCD5
10	C1F010PES	NQ6	12.25 [311.15]	9.25 [234.95]	20.88 [530.36]	179 [81]	W	SCD5
15	C1F015PES	NQ7	14.50 [368.30]	10.75 [273.05]	21.38 [543.06]	265 [119]	W	SCD5
25	C1F025PES	NQ8	14.50 [368.30]	10.75 [273.05]	27.38 [695.46]	385 [173]	W	SCD5
37.5	C1F037PES	NQS10	21.88 [555.76]	18.50 [469.90]	31.00 [787.40]	598 [269]	F or W*	SCD5

*Copper wound unit

Export Model C



190/200/208/220/240¹ X 380/400/416/440/480¹ Primary Volts 120/240 Secondary Volts 50/60 Hz

kVA	Catalog Number	Case Style	Approx. Dimensions Inches [mm]			Approx. Weight Lbs. [kg]	Mtg Type W - Wall F - Floor	Wiring Diagram
			Width	Depth	Height			
0.05	C1FC05XE*	NQ0	3.69 [93.73]	5.06 [128.53]	7.19 [182.63]	7.0 [3.2]	W	SCD28
0.10	C1FC10XE*	NQ0	3.69 [93.73]	5.06 [128.53]	7.19 [182.63]	7.0 [3.2]	W	SCD28
0.15	C1FC15XE*	NQ0	3.69 [93.73]	5.06 [128.53]	7.19 [182.63]	9.0 [4.1]	W	SCD28
0.25	C1FC25XE*	NQ0	3.69 [93.73]	5.06 [128.53]	7.19 [182.63]	10.0 [4.5]	W	SCD28
0.35	C1FC35XE*	NQ1	4.31 [109.48]	5.56 [141.23]	7.19 [182.63]	15.0 [6.8]	W	SCD28
0.50	C1FC50XE*	NQ1	4.31 [109.48]	5.56 [141.23]	7.19 [182.63]	16.0 [7.2]	W	SCD28
0.75	C1FC75XES*	NQ2	5.06 [128.53]	4.56 [115.83]	9.30 [236.22]	24.0 [10.8]	W	SCD28
1	C1F1C0XES*	NQ3	5.88 [149.36]	5.19 [131.83]	10.56 [268.23]	32.0 [14.4]	W	SCD28
1.5	C1F1C5XES*	NQ4	7.06 [179.33]	6.25 [158.75]	11.75 [298.45]	37.0 [16.7]	W	SCD28
2	C1F002XES*	NQ4	7.06 [179.33]	6.25 [158.75]	11.75 [298.45]	52.0 [23.4]	W	SCD28
3	C1F003XES*	NQ5	10.00 [254.00]	7.75 [196.85]	17.25 [438.15]	97.0 [43.7]	W	SCD2
5	C1F005XES	NQ5	10.00 [254.00]	7.75 [196.85]	17.25 [438.15]	120 [54]	W	SCD2
7.5	C1F007XES	NQ6A	12.25 [311.15]	9.25 [234.95]	17.63 [447.81]	148 [67]	W	SCD2
10	C1F010XES	NQ6	12.25 [311.15]	9.25 [234.95]	20.88 [530.36]	179 [81]	W	SCD2

Note ¹ The primary voltage ratio of 240 or 480 is available at

60Hz only with a secondary voltage of approximately 130/262V

*Copper wound unit

Data subject to change without notice.

Selection Tables

HPS Fortress™

Encapsulated Transformer for Commercial Applications

ALUMINUM WOUND THREE PHASE, TYPE 3R ENCLOSURE



208 Primary Volts

208Y/120 Secondary Volts

60 Hz

kVA	Catalog Number	Case Style	Approx. Dimensions Inches [mm]			Approx. Weight Lbs. [kg]	Mtg Type W - Wall F - Floor	Wiring Diagram
			Width	Depth	Height			
2	C3F002BBS*	NQT3	12.38 [314.46]	5.44 [138.18]	11.13 [282.71]	50.0 [22.5]	W	SCD8
3	C3F003BBS*	NQT3	12.38 [314.46]	5.44 [138.18]	11.13 [282.71]	70.0 [31.5]	W	SCD8
6	C3F006BBS	NQT5	16.63 [422.41]	10.25 [260.35]	16.63 [422.41]	140 [63]	W	SCD8
9	C3F009BBS	NQT6	19.25 [488.95]	10.44 [265.18]	16.63 [422.41]	210 [95]	W	SCD8
15	C3F015BBS	NQT7	20.25 [514.35]	13.00 [330.20]	23.38 [593.86]	350 [158]	F or W*	SCD8
30	C3F030BBS	NQT8	22.25 [565.15]	13.00 [330.20]	28.38 [720.86]	525 [236]	F or W*	SCD9
45	C3F045BBS	NQT9	31.50 [800.10]	16.00 [406.40]	29.88 [758.96]	700 [315]	F or W*	SCD9
75	C3F075BBS	NQT9A	34.63 [879.61]	18.50 [469.90]	36.75 [933.45]	1420 [640]	F	SCD9

*Copper wound unit

208 Primary Volts

480Y/277 Secondary Volts

60 Hz

kVA	Catalog Number	Case Style	Approx. Dimensions Inches [mm]			Approx. Weight Lbs. [kg]	Mtg Type W - Wall F - Floor	Wiring Diagram
			Width	Depth	Height			
2	C3F002BKS*	NQT3	12.38 [314.46]	5.44 [138.18]	11.13 [282.71]	50.0 [22.5]	W	SCD23
3	C3F003BKS*	NQT3	12.38 [314.46]	5.44 [138.18]	11.13 [282.71]	70.0 [31.5]	W	SCD23
6	C3F006BKS	NQT5	16.63 [422.41]	10.25 [260.35]	16.63 [422.41]	140 [63]	W	SCD23
9	C3F009BKS	NQT6	19.25 [488.95]	10.44 [265.18]	16.63 [422.41]	210 [95]	W	SCD23
15	C3F015BKS	NQT7	20.25 [514.35]	13.00 [330.20]	23.38 [593.86]	350 [158]	F or W*	SCD23
30	C3F030BKS	NQT8	22.25 [565.15]	13.00 [330.20]	28.38 [720.86]	525 [236]	F or W*	SCD26
45	C3F045BKS	NQT9	31.50 [800.10]	16.00 [406.40]	29.88 [758.96]	700 [315]	F or W*	SCD26
75	C3F075BKS	NQT9A	34.63 [879.61]	18.50 [469.90]	36.75 [933.45]	1420 [640]	F	SCD26

*Copper wound unit

240 Primary Volts

208Y/120 Secondary Volts

60 Hz

kVA	Catalog Number	Case Style	Approx. Dimensions Inches [mm]			Approx. Weight Lbs. [kg]	Mtg Type W - Wall F - Floor	Wiring Diagram
			Width	Depth	Height			
2	C3F002DBS*	NQT3	12.38 [314.46]	5.44 [138.18]	11.13 [282.71]	50.0 [22.5]	W	SCD8
3	C3F003DBS*	NQT3	12.38 [314.46]	5.44 [138.18]	11.13 [282.71]	70.0 [31.5]	W	SCD8
6	C3F006DBS	NQT5	16.63 [422.41]	10.25 [260.35]	16.63 [422.41]	140 [63]	W	SCD8
9	C3F009DBS	NQT6	19.25 [488.95]	10.44 [265.18]	16.63 [422.41]	210 [95]	W	SCD8
15	C3F015DBS	NQT7	20.25 [514.35]	13.00 [330.20]	23.38 [593.86]	350 [158]	F or W*	SCD8
30	C3F030DBS	NQT8	22.25 [565.15]	13.00 [330.20]	28.38 [720.86]	525 [236]	F or W*	SCD9
45	C3F045DBS	NQT9	31.50 [800.10]	16.00 [406.40]	29.88 [758.96]	700 [315]	F or W*	SCD9
75	C3F075DBS	NQT9A	34.63 [879.61]	18.50 [469.90]	36.75 [933.45]	1420 [640]	F	SCD9

*Copper wound unit

240 Primary Volts

480Y/277 Secondary Volts

60 Hz

kVA	Catalog Number	Case Style	Approx. Dimensions Inches [mm]			Approx. Weight Lbs. [kg]	Mtg Type W - Wall F - Floor	Wiring Diagram
			Width	Depth	Height			
2	C3F002DKS*	NQT3	12.38 [314.46]	5.44 [138.18]	11.13 [282.71]	50.0 [22.5]	W	SCD23
3	C3F003DKS*	NQT3	12.38 [314.46]	5.44 [138.18]	11.13 [282.71]	70.0 [31.5]	W	SCD23
6	C3F006DKS	NQT5	16.63 [422.41]	10.25 [260.35]	16.63 [422.41]	140 [63]	W	SCD23
9	C3F009DKS	NQT6	19.25 [488.95]	10.44 [265.18]	16.63 [422.41]	210 [95]	W	SCD23
15	C3F015DKS	NQT7	20.25 [514.35]	13.00 [330.20]	23.38 [593.86]	350 [158]	F or W*	SCD23
30	C3F030DKS	NQT8	22.25 [565.15]	13.00 [330.20]	28.38 [720.86]	525 [236]	F or W*	SCD26
45	C3F045DKS	NQT9	31.50 [800.10]	16.00 [406.40]	29.88 [758.96]	700 [315]	F or W*	SCD26
75	C3F075DKS	NQT9A	34.63 [879.61]	18.50 [469.90]	36.75 [933.45]	1420 [640]	F	SCD26

*Copper wound unit

Selection Tables

HPS Fortress™

Encapsulated Transformer for Commercial Applications

ALUMINUM WOUND THREE PHASE, TYPE 3R ENCLOSURE



480 Primary Volts

208Y/120 Secondary Volts

60 Hz

kVA	Catalog Number	Case Style	Approx. Dimensions Inches [mm]			Approx. Weight Lbs. [kg]	Mtg Type W - Wall F - Floor	Wiring Diagram
			Width	Depth	Height			
2	C3F002KBS*	NQT3	12.38 [314.46]	5.44 [138.18]	11.13 [282.71]	50.0 [22.5]	W	SCD8
3	C3F003KBS*	NQT3	12.38 [314.46]	5.44 [138.18]	11.13 [282.71]	70.0 [31.5]	W	SCD8
6	C3F006KBS	NQT5	16.63 [422.41]	10.25 [260.35]	16.63 [422.41]	140 [63]	W	SCD8
9	C3F009KBS	NQT6	19.25 [488.95]	10.44 [265.18]	16.63 [422.41]	210 [95]	W	SCD8
15	C3F015KBS	NQT7	20.25 [514.35]	13.00 [330.20]	23.38 [593.86]	350 [158]	F or W*	SCD8
30	C3F030KBS	NQT8	22.25 [565.15]	13.00 [330.20]	28.38 [720.86]	525 [236]	F or W*	SCD9
45	C3F045KBS	NQT9	31.50 [800.10]	16.00 [406.40]	29.88 [758.96]	700 [315]	F or W*	SCD9
75	C3F075KBS	NQT9A	34.63 [879.61]	18.50 [469.90]	36.75 [933.45]	1420 [640]	F	SCD9

*Copper wound unit

480 Primary Volts

240D Secondary Volts

60 Hz

kVA	Catalog Number	Case Style	Approx. Dimensions Inches [mm]			Approx. Weight Lbs. [kg]	Mtg Type W - Wall F - Floor	Wiring Diagram
			Width	Depth	Height			
2	C3F002KDS*	NQT3	12.38 [314.46]	5.44 [138.18]	11.13 [282.71]	50.0 [22.5]	W	SCD12
3	C3F003KDS*	NQT3	12.38 [314.46]	5.44 [138.18]	11.13 [282.71]	70.0 [31.5]	W	SCD12
6	C3F006KDS	NQT5	16.63 [422.41]	10.25 [260.35]	16.63 [422.41]	140 [63]	W	SCD12
9	C3F009KDS	NQT6	19.25 [488.95]	10.44 [265.18]	16.63 [422.41]	210 [95]	Wdd	SCD12
15	C3F015KDS	NQT7	20.25 [514.35]	13.00 [330.20]	23.38 [593.86]	350 [158]	F or W*	SCD12
30	C3F030KDS	NQT8	22.25 [565.15]	13.00 [330.20]	28.38 [720.86]	525 [236]	F or W*	SCD38
45	C3F045KDS	NQT9	31.50 [800.10]	16.00 [406.40]	29.88 [758.96]	700 [315]	F or W*	SCD38
75	C3F075KDS	NQT9A	34.63 [879.61]	18.50 [469.90]	36.75 [933.45]	1420 [640]	F	SCD38

*Copper wound unit

600 Primary Volts

208Y/120 Secondary Volts

60 Hz

kVA	Catalog Number	Case Style	Approx. Dimensions Inches [mm]			Approx. Weight Lbs. [kg]	Mtg Type W - Wall F - Floor	Wiring Diagram
			Width	Depth	Height			
2	C3F002PBS*	NQT3	12.38 [314.46]	5.44 [138.18]	11.13 [282.71]	50.0 [22.5]	W	SCD8
3	C3F003PBS*	NQT3	12.38 [314.46]	5.44 [138.18]	11.13 [282.71]	70.0 [31.5]	W	SCD8
6	C3F006PBS	NQT5	16.63 [422.41]	10.25 [260.35]	16.63 [422.41]	140 [63]	W	SCD8
9	C3F009PBS	NQT6	19.25 [488.95]	10.44 [265.18]	16.63 [422.41]	210 [95]	W	SCD8
15	C3F015PBS	NQT7	20.25 [514.35]	13.00 [330.20]	23.38 [593.86]	350 [158]	F or W*	SCD8
30	C3F030PBS	NQT8	22.25 [565.15]	13.00 [330.20]	28.38 [720.86]	525 [236]	F or W*	SCD9
45	C3F045PBS	NQT9	31.50 [800.10]	16.00 [406.40]	29.88 [758.96]	700 [315]	F or W*	SCD9
75	C3F075PBS	NQT9A	34.63 [879.61]	18.50 [469.90]	36.75 [933.45]	1420 [640]	F	SCD9

*Copper wound unit

600 Primary Volts

240D Secondary Volts

60 Hz

kVA	Catalog Number	Case Style	Approx. Dimensions Inches [mm]			Approx. Weight Lbs. [kg]	Mtg Type W - Wall F - Floor	Wiring Diagram
			Width	Depth	Height			
2	C3F002PDS*	NQT3	12.38 [314.46]	5.44 [138.18]	11.13 [282.71]	50.0 [22.5]	W	SCD12
3	C3F003PDS*	NQT3	12.38 [314.46]	5.44 [138.18]	11.13 [282.71]	70.0 [31.5]	W	SCD12
6	C3F006PDS	NQT5	16.63 [422.41]	10.25 [260.35]	16.63 [422.41]	140 [63]	W	SCD12
9	C3F009PDS	NQT6	19.25 [488.95]	10.44 [265.18]	16.63 [422.41]	210 [95]	W	SCD12
15	C3F015PDS	NQT7	20.25 [514.35]	13.00 [330.20]	23.38 [593.86]	350 [158]	F or W*	SCD12
30	C3F030PDS	NQT8	22.25 [565.15]	13.00 [330.20]	28.38 [720.86]	525 [236]	F or W*	SCD45
45	C3F045PDS	NQT9	31.50 [800.10]	16.00 [406.40]	29.88 [758.96]	700 [315]	F or W*	SCD45
75	C3F075PDS	NQT9A	34.63 [879.61]	18.50 [469.90]	36.75 [933.45]	1420 [640]	F	SCD45

*Copper wound unit

Enclosure Drawings

NQ Series - Single Phase

ENCLOSURE DRAWINGS & DIMENSIONS

Figure 1

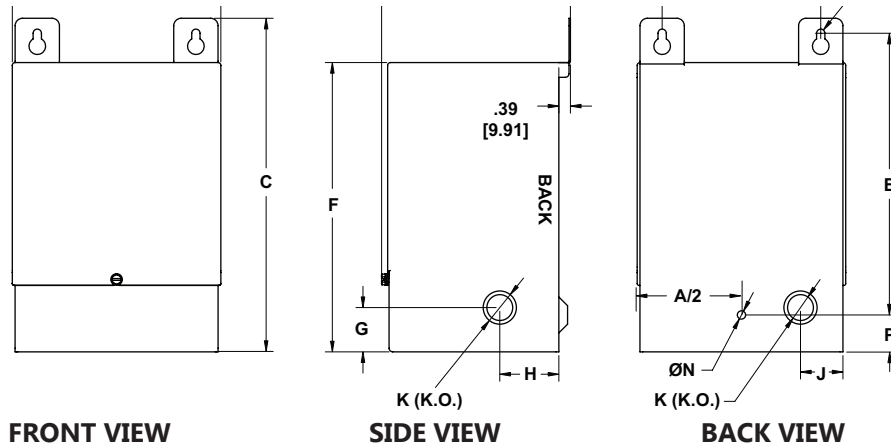
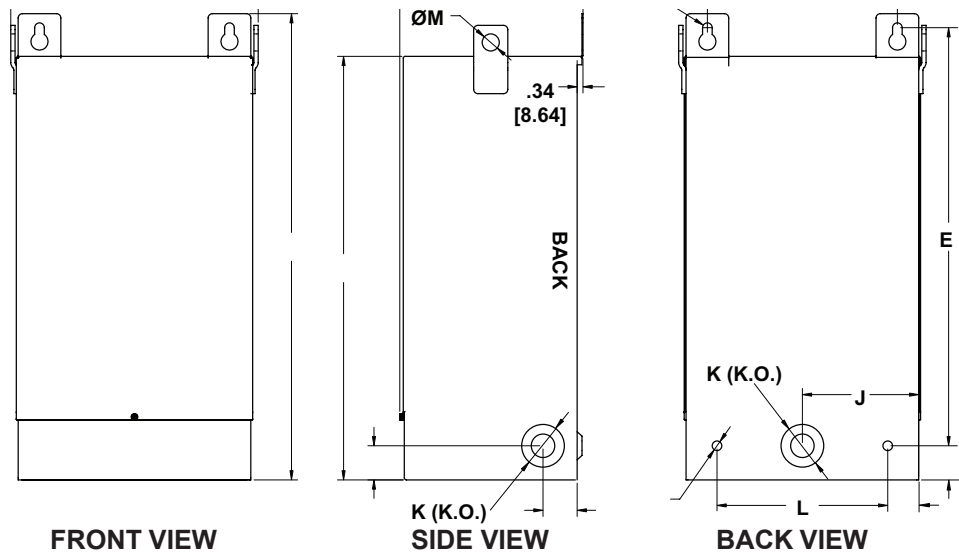


Figure 2



Case Style	Fig #	A	B	C	D	E	F	G	H	J	K ¹	L	M	N	P	R
NQ0	1	3.69 [93.73]	5.06 [128.53]	7.19 [182.63]	2.50 [63.50]	5.63 [143.01]	6.19 [157.23]	1.50 [38.10]	2.00 [50.80]	--	0.88 [22.36]	--	--	0.22 [5.59]	1.25 [31.75]	--
NQ1	1	4.31 [109.48]	5.56 [141.23]	7.19 [182.63]	3.13 [79.51]	5.63 [143.01]	6.13 [155.71]	1.50 [38.10]	2.00 [50.80]	0.81 [20.58]	0.88 [22.36]	--	--	0.22 [5.59]	1.25 [31.75]	--
NQ2	1	5.06 [128.53]	4.56 [115.83]	9.30 [236.22]	3.88 [98.56]	7.75 [196.85]	8.30 [210.82]	1.50 [38.10]	2.00 [50.80]	1.00 [25.40]	0.88 x 1.13 x 1.38 [22.36 x 28.71 x 35.06]	--	--	0.22 [5.59]	1.25 [31.75]	--
NQ3	1	5.88 [149.36]	5.19 [131.83]	10.56 [268.23]	4.13 [104.91]	8.31 [211.08]	9.06 [230.13]	1.50 [38.10]	2.00 [50.80]	1.25 [31.75]	0.88 x 1.13 x 1.38 [22.36 x 28.71 x 35.06]	--	--	0.28 [7.12]	1.25 [31.75]	--
NQ4	1	7.06 [179.33]	6.25 [158.75]	11.75 [298.45]	5.38 [136.66]	10.00 [254.00]	10.30 [261.62]	1.25 [31.75]	2.00 [50.80]	1.50 [38.10]	0.88 x 1.13 x 1.38 [22.36 x 28.71 x 35.06]	--	--	0.28 [7.12]	1.25 [31.75]	--
NQ5	2	10.00 [254.00]	7.75 [196.85]	17.25 [438.15]	7.38 [187.46]	15.38 [390.66]	15.25 [387.35]	2.375 [60.33]	2.00 [50.80]	4.00 [101.60]	1.13 x 1.38 [28.71 x 35.06]	6.00 [152.40]	0.75 [19.05]	0.44 [11.18]	1.25 [31.75]	1.68 [42.68]
NQ6A	2	12.25 [311.15]	9.25 [234.95]	17.63 [447.81]	9.38 [238.26]	14.88 [377.96]	15.56 [395.23]	2.00 [50.80]	2.00 [50.80]	5.00 [127.00]	1.38 x 2.50 [35.06 x 63.50]	8.00 [203.20]	0.75 [19.05]	0.44 [11.18]	2.00 [50.80]	1.68 [42.68]
NQ6	2	12.25 [311.15]	9.25 [234.95]	17.63 [447.81]	9.38 [238.26]	14.88 [377.96]	15.56 [395.23]	2.00 [50.80]	2.00 [50.80]	5.00 [127.00]	1.38 x 2.50 [35.06 x 63.50]	8.00 [203.20]	0.75 [19.05]	0.44 [11.18]	2.00 [50.80]	1.68 [42.68]
NQ7	2	14.50 [368.30]	10.75 [273.05]	21.38 [543.06]	11.63 [295.41]	18.63 [473.21]	19.38 [492.26]	2.00 [50.80]	2.00 [50.80]	6.00 [152.40]	1.38 x 2.50 [35.06 x 63.50]	10.00 [254.00]	0.75 [19.05]	0.44 [11.18]	2.00 [50.80]	1.68 [42.68]
NQ8	2	14.50 [368.30]	10.75 [273.05]	21.38 [543.06]	11.13 [282.71]	24.50 [622.30]	24.88 [631.96]	2.00 [50.80]	2.00 [50.80]	6.00 [152.40]	1.38 x 2.50 [35.06 x 63.50]	10.00 [254.00]	0.75 [19.05]	0.56 [14.23]	2.00 [50.80]	1.68 [42.68]

¹ Knockout (K) sizes are actual diameters of knockout, not conduit sizes

All dimensions in inches and [mm]

ENCLOSURE DRAWINGS & DIMENSIONS

Figure 3

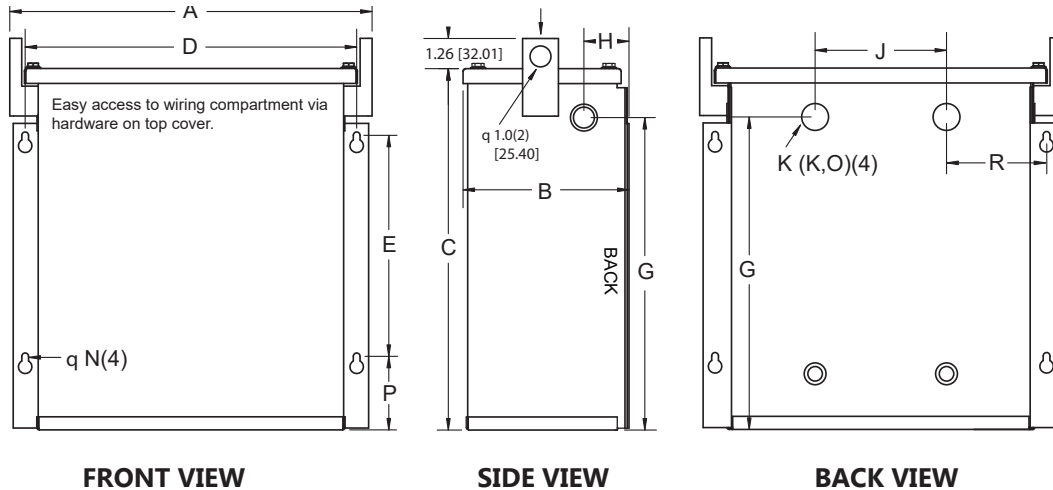
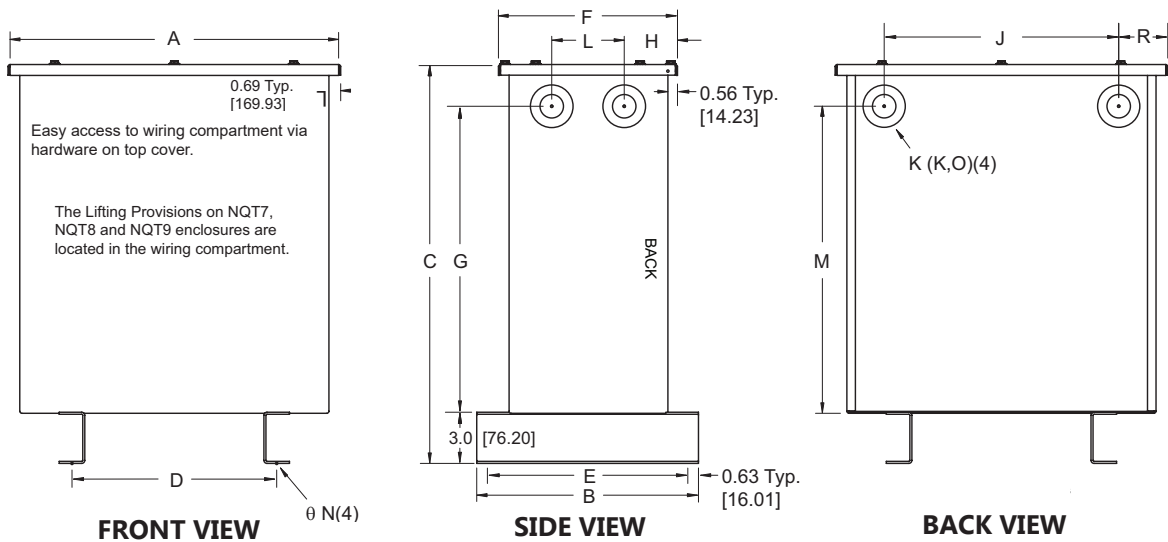


Figure 4



Case Style	Fig #	A	B	C	D	E	F	G	H	J	K ¹	L	M	N	P	R
NQT3	3	12.38 [314.46]	5.44 [138.18]	11.13 [282.71]	11.38 [289.06]	6.50 [165.10]	-	9.50 [241.30]	2.38 [60.46]	5.50 [139.70]	0.88 x 1.13 [22.36 x 28.71]	-	-	0.28 [7.12]	1.81 [45.98]	3.44 [87.38]
NQT4	3	15.19 [385.83]	6.94 [176.28]	15.13 [384.31]	13.88 [352.56]	9.25 [234.95]	-	13.56 [344.43]	1.88 [47.76]	5.50 [139.70]	0.88 x 1.13 [22.36 x 28.71]	-	-	0.28 [7.12]	3.06 [77.73]	4.19 [106.43]
NQT5	3	16.63 [422.41]	10.25 [260.35]	16.63 [422.41]	14.50 [368.30]	8.25 [209.55]	-	13.88 [352.56]	2.69 [68.33]	10.00 [254.00]	1.38 x 1.75 [35.06 x 44.45]	-	-	0.41 [10.42]	4.50 [114.30]	2.25 [57.15]
NQT6	3	19.25 [488.95]	10.44 [265.18]	16.63 [422.41]	17.50 [444.50]	8.25 [209.55]	-	13.56 [344.43]	2.69 [68.33]	12.50 [317.50]	1.38 x 2.50 [35.06 x 63.5]	-	-	0.41 [10.42]	4.50 [114.30]	2.50 [63.50]
NQT7	4	20.25 [514.35]	13.00 [330.20]	23.38 [593.86]	12.00 [304.80]	11.75 [298.45]	11.38 [289.06]	17.94 [455.68]	2.50 [63.50]	13.75 [349.25]	1.38 x 2.50 [35.06 x 63.5]	4.25 [107.95]	17.94 [455.68]	0.56 [14.23]	-	2.13 [54.11]
NQT8	4	22.25 [565.15]	13.00 [330.20]	28.38 [720.86]	14.00 [355.60]	11.75 [298.45]	11.38 [289.06]	21.94 [557.28]	2.50 [63.50]	15.75 [400.05]	1.38 x 2.50 [35.06 x 63.5]	4.25 [107.95]	21.94 [557.28]	0.56 [14.23]	-	2.13 [54.11]
NQT9	4	31.25 [793.75]	16.00 [406.40]	29.88 [758.96]	18.00 [457.20]	14.75 [374.65]	14.13 [358.91]	23.94 [608.08]	2.75 [69.85]	22.75 [577.85]	2.00 x 3.00 [50.8 x 76.2]	6.50 [165.10]	23.64 [600.46]	0.56 [14.23]	-	3.13 [79.51]
NQT9A	4	34.63 [879.61]	18.50 [469.90]	36.75 [933.45]	22.50 [571.50]	17.25 [438.15]	16.50 [419.10]	30.38 [771.66]	4.69 [119.13]	27.25 [692.15]	2.00 x 3.00 [50.8 x 76.2]	6.50 [165.10]	30.38 [771.66]	0.56 [14.23]	-	3.31 [84.08]
NQT10	4	38.44 [976.38]	26.00 [660.40]	39.13 [993.91]	23.50 [596.90]	24.00 [609.60]	20.80 [528.32]	32.50 [825.50]	6.40 [162.56]	24.75 [628.65]	2.50 X 3.63 [63.5 x 92.21]	8.00 [203.20]	32.50 [825.50]	0.69 [17.53]	-	6.84 [173.74]
NQT11	4	37.38 [949.46]	30.00 [762.00]	45.63 [1159.01]	23.50 [596.90]	28.00 [711.20]	22.00 [558.80]	39.00 [990.60]	6.95 [176.53]	24.75 [628.65]	2.50 X 3.63 [63.5 x 92.21]	8.00 [203.20]	39.00 [990.60]	0.69 [17.53]	-	6.31 [160.28]
NQS10	4	21.88 [555.76]	18.50 [469.90]	31.00 [787.40]	13.50 [342.90]	17.25 [438.15]	16.50 [419.10]	24.63 [625.61]	4.91 [124.72]	13.13 [333.51]	1.75 x 2.50 [44.45 x 63.5]	6.50 [165.10]	24.63 [625.61]	0.56 [14.23]	-	4.00 [101.60]

¹ Knockout (K) sizes are actual diameters of knockout, not conduit sizes

All dimensions in inches and [mm]

Data subject to change without notice.

Accessories

Wall Mounting Kit

The following wall mounting kits are available:

Enclosure Case Style*	Mounting Type	Wall Mounting Kit Part Number
NQ0-NQ8	Wall	Included
NQS10	Wall or Floor	NQTW2
NQT3-NQT6	Wall	Included
NQT7-NQT8	Wall or Floor	NQTW1
NQT9A	Floor	N/A
NQT9	Wall or Floor	NQTW2

*Applies to HPS Fortress line only.

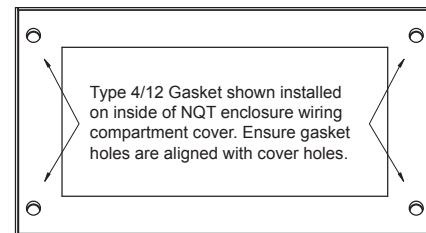
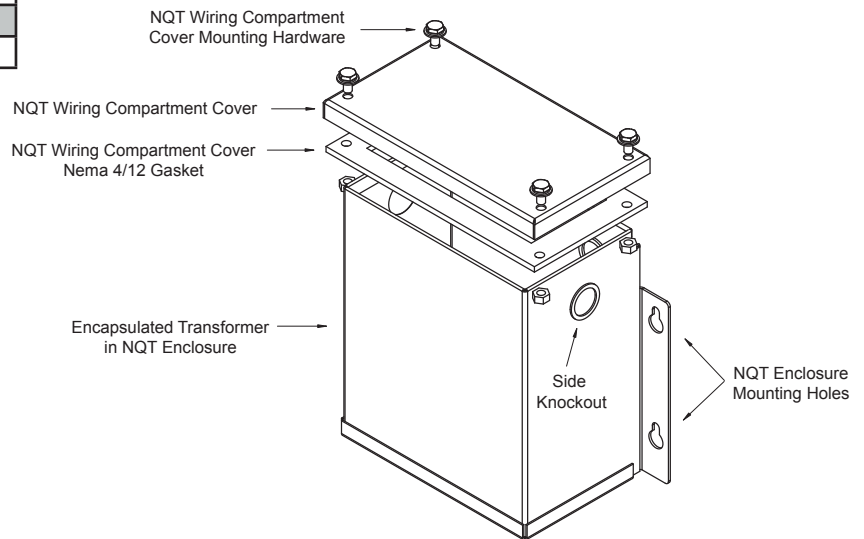
Optional Type 4/12 Gasket Kits

Three phase HPS Fortress™ encapsulated transformers in standard Type 3R rated NQT enclosures, can easily be converted to a Type 4 or 12 rating by ordering and installing the appropriate optional gasket kit as listed in the table below.

Enclosure Case Style	Gasket Kit P/N
NQT3	NQT3GK
NQT4	NQT4GK
NQT5	NQT5GK
NQT6	NQT6GK
NQT7	NQT7GK
NQT8	NQT8GK
NQT9	NQT9GK
NQT9A	NQT9AGK

Features include:

- Manufactured from heavy-duty angle steel for maximum support.
- Wall mounting brackets are finished in matching ANSI 61 UL 50 Grey.
- All hardware required to attach to the transformer is supplied.
- Mounting brackets come with three wall mounting holes for maximum holding strength.



HPS TITAN® SERIES

Did you know...

HPS also has an industrial line of encapsulated transformers called the HPS Titan® Series. These transformers are UL Listed for "Class 1, Division 2 Groups A, B, C and D Hazardous Locations" and also meets ABS Type Approval for "Marine Duty Service and Offshore Applications - Electrical Distribution and Propulsion." Please contact your HPS sales representative for more details.



Electrical Schematics and Connection Diagrams

SCD 1

SCHEMATIC		CONNECTIONS			
	Primary Volts		Connect lines to	Inter-connect	
	240	480	416	H1, H4	H2-H3
	120	240	208	H1, H4	H1-H3, H2-H4
	Secondary Volts		Connect lines to	Inter-connect	
24	32	48	240	X1, X4	X2-X3
12/24	16/32	24/48	120/240	X1, X2, X4	X2-X3
12	16	24	120	X1, X2	X2-X4, X1-X3

SCD 2

SCHEMATIC		CONNECTIONS							
	Primary Volts		Connect lines to	Inter-connect					
	504	440	437	218	291	277	440	H1 H2	1-2
	492		426	213	284			H1, H2	2-3
	480	416	416	208	277	240	416	H1 H2	3-4
	468		406	203	270			H1, H2	4-5
	456	400	395	198	263	208	400	H1, H2	5-6
	444		385	192	256			H1, H2	6-7
	432		374	187	249	120	380	H1, H2	7-8
		220						H1, H2	H1-2, H2-1
	240	208	208					H1, H2	H1-4, H2-3
	228	200	198					H1, H2	H1-6, H2-5
	216	190	187					H1, H2	H1-8, H2-7
Secondary Volts		Connect lines to	Inter-connect						
	240	X1, X4	X2-X3						
	120	X1, X2	X2-X4, X1-X3						
	120/240	X1, X2, X4	X2-X3						

SCD 4

SCHEMATIC		CONNECTIONS												
	Primary Volts		Connect lines to	Inter-connect										
	208	277	347	380	416	600	2400	3300	4160	4800	6600	7200	H1, H2	---
	Secondary		Connect lines to	Inter-connect										
	240	24	X1, X4	X2-X3										
120/240	12/24	X1, X2, X4	X2-X3											
120	12	X1, X2	X2-X4, X1-X3											

Electrical Schematics and Connection Diagrams

SCD 5

SCHEMATIC	CONNECTIONS			
	Primary Volts		Connect lines to	Inter-connect
	120	208 240 277 380 416 480 600	H1, H2	1-2
	114	198 228 263 361 395 156 570	H1, H2	2-3
	108	188 216 249 347 374 432 540	H1, H2	3-4
	Secondary Volts		Connect lines to	Inter-connect
	240		X1, X4	X2-X3
	120/240		X1, X2, X4	X2-X3
	120		X1, X2	X2-X4, X1-X3

SCD 8

SCHEMATIC	CONNECTIONS			
	Primary Volts		Connect lines to	Inter-connect
	218	242 252 437 483 504 604 630 2520 4368	H1, H2, H3	1-2
	208	230 240 416 460 480 575 600 2400 4160	H1, H2, H3	2-3
	198	219 228 395 437 456 546 570 2280 3952	H1, H2, H3	3-4
	Secondary Volts		Connect lines to	Inter-connect
	208 230 240 380 416 460 480 600		X1, X2, X3	
	120 133 139 220 240 265 277 347		X1, X0	X2, X0 X3, X0

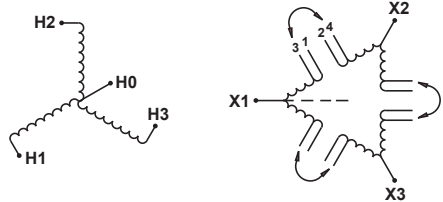
SCD 9

SCHEMATIC	CONNECTIONS			
	Primary Volts		Connect lines to	Inter-connect
	218	242 252 437 483 504 604 630	H1, H2, H3	1
	213	236 246 426 472 492 589 615	H1, H2, H3	2
	208	230 240 416 460 480 575 600	H1, H2, H3	3
	203	224 234 406 449 468 561 585	H1 H2 H3	4
	Secondary Volts		Connect lines to	Inter-connect
	208 380 416 480 600		X1, X2, X3	-
	120 220 240 277 347		X1, X0	-
			X2, X0	-
			X3, X0	-

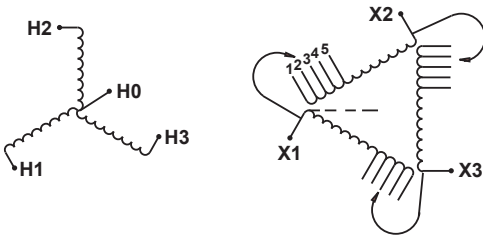
SCD 12

SCHEMATIC	CONNECTIONS			
	Primary Volts		Connect lines to	Inter-connect
	480	600	H1, H2, H3	1-2
	456	570	H1, H2, H3	2-3
	432	540	H1, H2, H3	3-4
	Secondary Volts		Connect lines to	Inter-connect
	240		X1, X2, X3	-

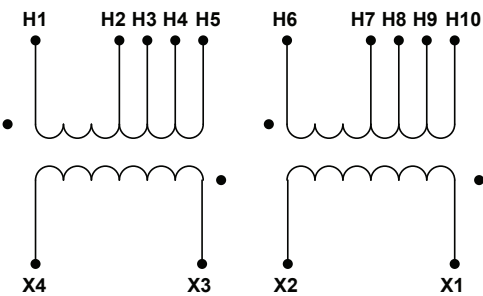
SCD 23

SCHEMATIC		CONNECTIONS				
		Primary Volts		Connect lines to	Inter-connect	
		208	240	252	X1, X2, X3	1-2
		198	228	240	X1, X2, X3	2-3
		188	216	228	X1, X2, X3	3-4
		Secondary Volts		Inter-connect		
		230	260	460	480	H1, H2, H3
		133	139	265	277	H1, H0 H2, H0 H3, H0

SCD 26

SCHEMATIC		CONNECTIONS				
		Primary Volts		Connect lines to	Inter-connect	
		218	252	X1, X2, X3	1	
		213	246	X1, X2, X3	2	
		208	240	X1, X2, X3	3	
		203	234	X1, X2, X3	4	
		198	228	X1, X2, X3	5	
		Secondary Volts		Connect lines to	Inter-connect	
		460	480	600	H1, H2, H3	-
		265	277	347	H1, H0 H2, H0 H3, H0	-

SCD 28

SCHEMATIC		CONNECTIONS			
		Primary Volts		Connect lines to	Inter-connect
		480 (60Hz)	H1, H10	H5-H6	
		440	H1, H10	H5-H6	
		416	H1, H9	H4-H6	
		400	H1, H8	H3-H6	
		380	H1, H7	H2-H6	
		240 (60Hz)	H1, H10	H1-H6, H5-H10	
		220	H1, H10	H1-H6, H5-H10	
		208	H1, H9	H1-H6, H5-H10	
		200	H1, H8	H1-H6, H3-H8	
		190	H1, H7	H1-H6, H2-H7	
		Secondary Volts		Connect lines to	Inter-connect
		240	X1, X4	X2-X3	
		120/240	X1, X2, X4	X2-X3	
		120	X1, X4	X2-X4, X1-X3	

Electrical Schematics and Connection Diagrams

SCD 33

SCHEMATIC		CONNECTIONS		
	Primary Volts	Connect lines to	Inter-connect	
	380	H1, H3	-	
	347	H1, H2	-	
	Secondary Volts	Connect lines to	Inter-connect	
	240	X1, X4	X2-X3	
	120/240	X1, X2, X4	X2-X3	
120	X1, X2	X2-X4, X1-X3		

SCD 38

SCHEMATIC		CONNECTIONS		
	Primary Volts	Connect lines to	Inter-connect	
	504	H1, H2, H3	1	
	492	H1, H2, H3	2	
	480	H1, H2, H3	3	
	468	H1, H2, H3	4	
	456	H1, H2, H3	5	
	444	H1, H2, H3	6	
	432	H1, H2, H3	7	
	Secondary Volts	Connect lines to	Inter-connect	
	240	X1, X2, X3	-	

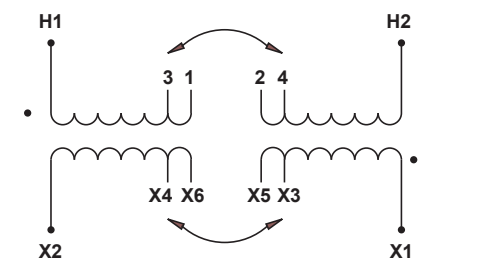
SCD 41

SCHEMATIC		CONNECTIONS		
	Primary Volts	Connect lines to	Inter-connect	
	277	H1, H5	-	
	240	H1, H4	-	
	208	H1, H3	-	
	120	H1, H2	-	
	Secondary Volts	Connect lines to	Inter-connect	
240	X1, X4	X2-X3		
120/240	X1, X2, X4	X2-X3		
120	X1, X2	X2-X4, X1-X3		

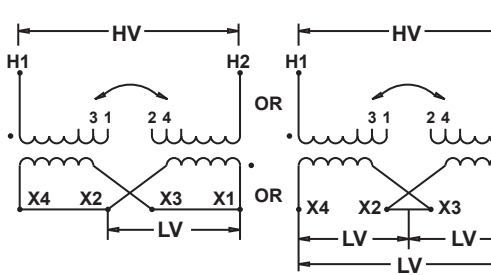
SCD 42

SCHEMATIC		CONNECTIONS		
	Primary Volts	Connect lines to	Inter-connect	
	480	H1, H3	-	
	277	H1, H2	-	
	Secondary Volts	Connect lines to	Inter-connect	
277	X1, X3	-		
208	X1, X2	-		

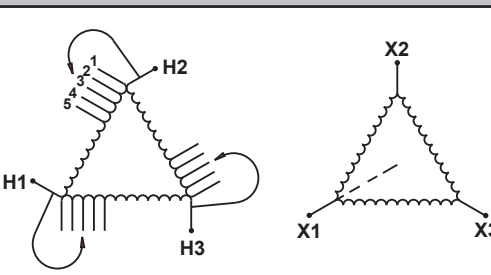
SCD 43

SCHEMATIC	CONNECTIONS		
	Primary Volts	Connect lines to	Inter-connect
	480	H1, H2	1-2
	277	H1, H2	3-4
	Secondary Volts	Connect lines to	Inter-connect
	277	X1, X2	X5-X6
	208	X1, X2	X3-X4

SCD 44

SCHEMATIC	CONNECTIONS		
	Primary Volts	Connect lines to	Inter-connect
	380	H1, H2	1-2
	347	H1, H2	3-4
	Secondary Volts	Connect lines to	Inter-connect
	240	X1, X4	X2-X3
	120/240	X1, X2, X4	X2-X3
	120	X1, X2	X2-X4, X1-X3

SCD 45

SCHEMATIC	CONNECTIONS		
	Primary Volts	Connect lines to	Inter-connect
	630	H1, H2, H3	1
	615	H1, H2, H3	2
	600	H1, H2, H3	3
	585	H1, H2, H3	4
	570	H1, H2, H3	5
	Secondary Volts	Connect lines to	Inter-connect
	240	X1, X2, X3	-



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