

Type EP 3–25 kVA



Contents

Description

	<i>Page</i>
General-Purpose Encapsulated Transformers	
Catalog Number Selection	V2-T2-94
Product Selection	V2-T2-94
Single-Phase	V2-T2-94
Three-Phase	V2-T2-100
Accessories	V2-T2-109
Technical Data and Specifications.	V2-T2-109

Product Description

Note: The following pages provide listings for most standard transformer ratings and styles. For other ratings or styles not shown, or for special enclosure types (including stainless steel), refer to Eaton.

Type EP and EPT

- Encapsulated design
- Suitable for indoor or outdoor applications
- Totally enclosed, non-ventilated enclosures
- Enclosures are NEMA 3R rated
- Mountable in any position indoors and upright-only outdoors
- 180°C insulation system
- 115°C rise standard; 80°C optional
- Available in ratings through 37.5 kVA single-phase; 75 kVA three-phase

Application Description

The basic purpose of a transformer is voltage transformation as near as practically possible to the load for economy and distribution of power. Typical loads for dry-type distribution transformers include lighting, heating, air conditioners, fans and machine tools. Such loads are found in commercial, institutional, industrial and residential structures.

Features, Benefits and Functions

- 60 Hz operation (50/60 Hz optional)
- Short-term overload capability as required by ANSI
- Meet NEMA ST-20 sound levels

Standards and Certifications

- UL listed
- CSA certified



Industry Standards

All Eaton dry-type distribution and control transformers are built and tested in accordance with applicable NEMA, ANSI and IEEE Standards. All 600 volt class transformers are UL listed unless otherwise noted.

Seismically Qualified

Eaton manufactured dry-type distribution transformers are seismically qualified and exceed requirements of the Uniform Building Code (UBC), International Building Code (IBC), and California Code Title 24.

Catalog Number SelectionPlease refer to Section 2.7 **Page V2-T2-187**.

2

Product SelectionAdditional Product Selection information begins on **Page V2-T2-189**.**Single-Phase Encapsulated—Type EP, 60 Hz**

Type EP 3–37.5 kVA

120 x 240 Volts to 120/240 Volts ①

kVA	Full Capacity Taps		Type	°C Temp. Rise	Frame	Wiring Diagram Number	Weight Lbs (kg)	Weathershield	Style Number
	FCAN	FCBN							
0.5	—	—	EP	115	FR57P	3E	16 (7)	Indoor–Outdoor	S10N11P51P
1	—	—	EP	115	FR67P	3E	31 (14)	Indoor–Outdoor	S10N11P01P
1.5	—	—	EP	115	FR67P	3E	42 (19)	Indoor–Outdoor	S10N11P16P
2	—	—	EP	115	FR68P	3E	42 (19)	Indoor–Outdoor	S10N11P02P
3	—	—	EP	115	FR176	3E	55 (25)	Indoor–Outdoor	S10N11S03N
5	—	—	EP	115	FR177	3E	113 (51)	Indoor–Outdoor	S10N11S05N
7.5	—	—	EP	115	FR178	3E	123 (56)	Indoor–Outdoor	S10N11S07N
10	—	—	EP	115	FR179	3E	193 (88)	Indoor–Outdoor	S10N11S10N
15	—	—	EP	115	FR180	3E	216 (98)	Indoor–Outdoor	S10N11S15N
25	—	—	EP	115	FR182	3E	375 (170)	Indoor–Outdoor	S10N11S25N

208 Volts to 120/240 Volts ①

kVA	Full Capacity Taps		Type	°C Temp. Rise	Frame	Wiring Diagram Number	Weight Lbs (kg)	Weathershield	Style Number
	FCAN	FCBN							
0.5	—	—	EP	115	FR57P	26A	16 (7)	Indoor–Outdoor	S29N11P51P
1	—	—	EP	115	FR67P	26A	31 (14)	Indoor–Outdoor	S29N11P01P
1.5	—	—	EP	115	FR67P	26A	42 (19)	Indoor–Outdoor	S29N11P16P
2	—	—	EP	115	FR68P	26A	42 (19)	Indoor–Outdoor	S29N11P02P
3	—	—	EP	115	FR176	26A	65 (30)	Indoor–Outdoor	S29N11S03N
5	—	—	EP	115	FR177	26A	113 (51)	Indoor–Outdoor	S29N11S05N
7.5	—	—	EP	115	FR178	26A	123 (56)	Indoor–Outdoor	S29N11S07N
10	—	—	EP	115	FR179	26A	193 (88)	Indoor–Outdoor	S29N11S10N
15	—	—	EP	115	FR180	26A	216 (98)	Indoor–Outdoor	S29N11S15N
25	—	—	EP	115	FR182	26A	395 (179)	Indoor–Outdoor	S29N11S25N

Notes

① Contact Eaton for availability of 0.05–0.25 kVA designs.

Contact your local Eaton sales office for CE Mark transformer requirements. For other ratings or styles not shown, or for special enclosure types (including stainless steel), refer to Eaton. Frame drawings/dimensions information begins on **Page V2-T2-215**.

General-Purpose Encapsulated Transformers

Single-Phase Encapsulated—Type EP, 60 Hz

277 Volts to 120/240 Volts ^①

kVA	Full Capacity Taps		Type	°C Temp. Rise	Frame	Wiring Diagram Number	Weight Lbs (kg)	Weathershield	Style Number
	FCAN	FCBN							
0.5	—	—	EP	115	FR58AP	524A	26 (12)	Indoor–Outdoor	S27N11P51P
1	—	—	EP	115	FR59AP	524A	31 (14)	Indoor–Outdoor	S27N11P01P
1.5	—	—	EP	115	FR67P	524A	42 (19)	Indoor–Outdoor	S27N11P16P
2	—	—	EP	115	FR176P	524A	65 (30)	Indoor–Outdoor	S27N11P02P
3	—	—	EP	115	FR176	524A	55 (25)	Indoor–Outdoor	S27N11S03N
5	—	—	EP	115	FR177	524A	113 (51)	Indoor–Outdoor	S27N11S05N
7.5	—	—	EP	115	FR178	524A	123 (56)	Indoor–Outdoor	S27N11S07N
10	—	—	EP	115	FR179	524A	193 (88)	Indoor–Outdoor	S27N11S10N
15	—	—	EP	115	FR180	524A	180 (82)	Indoor–Outdoor	S27N11S15N
25	—	—	EP	115	FR182	524A	375 (170)	Indoor–Outdoor	S27N11S25N

240 x 480 Volts to 120/240 Volts

kVA	Full Capacity Taps		Type	°C Temp. Rise	Frame	Wiring Diagram Number	Weight Lbs (kg)	Weathershield	Style Number
	FCAN	FCBN							
0.050	—	—	EP	115	FR52	3A	7 (3)	Indoor–Outdoor	S20N11S81N
0.075	—	—	EP	115	FR54	3A	7 (3)	Indoor–Outdoor	S20N11S85N
0.100	—	—	EP	115	FR54	3A	7 (3)	Indoor–Outdoor	S20N11S82N
0.150	—	—	EP	115	FR55	3A	8 (4)	Indoor–Outdoor	S20N11S83N
0.25	—	—	EP	115	FR57P	3A	12 (5)	Indoor–Outdoor	S20N11P26P
0.5	—	—	EP	115	FR57P	3A	16 (7)	Indoor–Outdoor	S20N11P51P
0.75	—	—	EP	115	FR58AP	3A	26 (12)	Indoor–Outdoor	S20N11P76P
1	—	—	EP	115	FR67P	3A	31 (14)	Indoor–Outdoor	S20N11P01P
1.5	—	—	EP	115	FR67P	3A	42 (19)	Indoor–Outdoor	S20N11P16P
2	—	—	EP	115	FR68P	3A	42 (19)	Indoor–Outdoor	S20N11P02P
3	—	—	EP	115	FR176	3A	65 (30)	Indoor–Outdoor	S20N11S03N
3	②	②	EP	115	FR176	3A	65 (30)	Indoor–Outdoor	S20K11S03N
5	—	—	EP	115	FR177	3A	113 (51)	Indoor–Outdoor	S20N11S05N
5	②	②	EP	115	FR177	9A	105 (48)	Indoor–Outdoor	S20K11S05N
7.5	—	—	EP	115	FR178	3A	105 (48)	Indoor–Outdoor	S20N11S07N
7.5	②	②	EP	115	FR178	9A	123 (56)	Indoor–Outdoor	S20K11S07N
10	—	—	EP	115	FR179	3A	193 (88)	Indoor–Outdoor	S20N11S10N
10	②	②	EP	115	FR179	9A	193 (88)	Indoor–Outdoor	S20K11S10N
15	—	—	EP	115	FR180	3A	216 (98)	Indoor–Outdoor	S20N11S15N
15	③	③	EP	115	FR180	23A	216 (98)	Indoor–Outdoor	S20L11S15N
25	—	—	EP	115	FR182	3A	385 (175)	Indoor–Outdoor	S20N11S25N
25	③	③	EP	115	FR182	23A	375 (170)	Indoor–Outdoor	S20L11S25N
37.5	③	③	EP	115	FR300A	248A	735 (334)	Indoor–Outdoor	S20L11S37 ^④

Notes

- ① Contact Eaton for availability of 0.05–0.25 kVA designs.
 ② 1 at +10% FCBN at 240 volts; 2 at –5% FCBN at 480 volts.
 ③ 2 at +5% FCBN at 240 volts; 4 at –2.5% FCBN at 480 volts.
 ④ Floor-mount only.

Contact your local Eaton sales office for CE Mark transformer requirements. For other ratings or styles not shown, or for special enclosure types (including stainless steel), refer to Eaton. Frame drawings/dimensions information begins on **Page V2-T2-215**.

Single-Phase Encapsulated—Type EP, 60 Hz

2

190/200/208/220 x 380/400/416/440 Volts to 110/220 Volts 50/60 Hz—Export Model IP 22 Rated

kVA	Full Capacity Taps		Type	°C Temp. Rise	Frame	Wiring Diagram Number	Weight Lbs (kg)	Weathershield	Style Number
	FCAN	FCBN							
0.5	—	—	EP	115	FR67	538A	42 (19)	Indoor–Outdoor	S40N14S51CE
1	—	—	EP	115	FR67	538A	42 (19)	Indoor–Outdoor	S40N14S01CE
1.5	—	—	EP	115	FR176	538A	65 (30)	Indoor–Outdoor	S40N14S16CE
2	—	—	EP	115	FR176	538A	65 (30)	Indoor–Outdoor	S40N14S02CE
3	—	—	EP	115	FR177	538A	113 (51)	Indoor–Outdoor	S40N14S03CE
5	—	—	EP	115	FR178	538A	140 (64)	Indoor–Outdoor	S40N14S05CE
7.5	—	—	EP	115	FR179	538A	193 (88)	Indoor–Outdoor	S40N14S07CE
10	—	—	EP	115	FR180	538A	216 (98)	Indoor–Outdoor	S40N14S10CE
15	—	—	EP	115	FR182	538A	375 (170)	Indoor–Outdoor	S40N14S15CE

120/208/240/277 Volts to 120/240 Volts 60 Hz

kVA	Full Capacity Taps		Type	°C Temp. Rise	Frame	Wiring Diagram Number	Weight Lbs (kg)	Weathershield	Style Number
	FCAN	FCBN							
1	—	—	EP	115	FR67P	①	42 (19)	Indoor–Outdoor	S54N11P01
1.5	—	—	EP	115	FR176P	①	65 (30)	Indoor–Outdoor	S54N11P16
2	—	—	EP	115	FR176P	①	65 (30)	Indoor–Outdoor	S54N11P02
3	—	—	EP	115	FR177	①	113 (51)	Indoor–Outdoor	S54N11S03
5	—	—	EP	115	FR178	①	140 (64)	Indoor–Outdoor	S54N11S05
7.5	—	—	EP	115	FR179	①	193 (88)	Indoor–Outdoor	S54N11S07
10	—	—	EP	115	FR180	①	216 (98)	Indoor–Outdoor	S54N11S10

240 x 480 Volts to 120/240 Volts Stainless Steel ②

kVA	Full Capacity Taps		Type	°C Temp. Rise	Frame	Wiring Diagram Number	Weight Lbs (kg)	Weathershield	Style Number
	FCAN	FCBN							
3	—	—	EP	115	FR176	3A	65 (30)	Indoor–Outdoor	S20N11S03SS
5	—	—	EP	115	FR177	3A	113 (51)	Indoor–Outdoor	S20N11S05SS
7.5	—	—	EP	115	FR178	3A	123 (56)	Indoor–Outdoor	S20N11S07SS
10	—	—	EP	115	FR179	3A	193 (88)	Indoor–Outdoor	S20N11S10SS
15	—	—	EP	115	FR180	3A	205 (93)	Indoor–Outdoor	S20N11S15SS
25	—	—	EP	115	FR182	3A	375 (170)	Indoor–Outdoor	S20N11S25SS

Notes

① Refer to your local Eaton sales office.

② NEMA 3R, 304 stainless steel enclosure; 316 stainless steel enclosure available as an option.

Contact your local Eaton sales office for CE Mark transformer requirements. For other ratings or styles not shown, or for special enclosure types (including stainless steel), refer to Eaton. Frame drawings/dimensions information begins on **Page V2-T2-215**.

General-Purpose Encapsulated Transformers

Single-Phase Encapsulated—Type EP, 60 Hz

480 Volts to 120/240 Volts

kVA	Full Capacity Taps		Type	°C Temp. Rise	Frame	Wiring Diagram Number	Weight Lbs (kg)	Weathershield	Style Number
	FCAN	FCBN							
1	—	2 at -5%	EP	115	FR67P	2D	31 (14)	Indoor-Outdoor	S48G11P01P
1.5	—	2 at -5%	EP	115	FR67P	2D	42 (19)	Indoor-Outdoor	S48G11P16P
2	—	2 at -5%	EP	115	FR68P	2D	42 (19)	Indoor-Outdoor	S48G11P02P
3	—	2 at -5%	EP	115	FR176	2D	65 (30)	Indoor-Outdoor	S48G11S03N
3	2 at +2.5%	2 at -2.5%	EP	115	FR176	16A	65 (30)	Indoor-Outdoor	S48D11S03N
5	—	2 at -5%	EP	115	FR177	2D	113 (51)	Indoor-Outdoor	S48G11S05N
5	2 at +2.5%	2 at -2.5%	EP	115	FR177	16A	113 (51)	Indoor-Outdoor	S48D11S05N
7.5	—	2 at -5%	EP	115	FR178	2D	123 (56)	Indoor-Outdoor	S48G11S07N
7.5	2 at +2.5%	2 at -2.5%	EP	115	FR178	16A	123 (56)	Indoor-Outdoor	S48D11S07N
10	—	2 at -5%	EP	115	FR179	2D	193 (88)	Indoor-Outdoor	S48G11S10N
10	2 at +2.5%	2 at -2.5%	EP	115	FR179	16A	193 (88)	Indoor-Outdoor	S48D11S10N
15	—	2 at -5%	EP	115	FR180	2D	216 (98)	Indoor-Outdoor	S48G11S15N
15	2 at +2.5%	2 at -2.5%	EP	115	FR180	16A	216 (98)	Indoor-Outdoor	S48D11S15N
25	—	2 at -5%	EP	115	FR182	2D	385 (175)	Indoor-Outdoor	S48G11S25N
25	2 at +2.5%	4 at -2.5%	EP	115	FR132	83A	410 (186)	Indoor-Outdoor	S48M11S25N

480 Volts to 120/240 Volts Stainless Steel, Copper Windings ^①

kVA	Full Capacity Taps		Type	°C Temp. Rise	Frame	Wiring Diagram Number	Weight Lbs (kg)	Weathershield	Style Number
	FCAN	FCBN							
10	2 at +2.5%	2 at -2.5%	EP	115	FR179	16A	210 (95)	Indoor-Outdoor	S48D11S10CUSS
15	2 at +2.5%	2 at -2.5%	EP	115	FR180	16A	235 (107)	Indoor-Outdoor	S48D11S15SSCU
25	2 at +2.5%	4 at -2.5%	EP	115	FR182	83A	415 (188)	Indoor-Outdoor	S48M11S25SSCU

600 Volts to 120/240 Volts

kVA	Full Capacity Taps		Type	°C Temp. Rise	Frame	Wiring Diagram Number	Weight Lbs (kg)	Weathershield	Style Number
	FCAN	FCBN							
0.5	—	2 at -5%	EP	115	FR57P	2I	16 (7)	Indoor-Outdoor	S60G11P51P
0.75	—	2 at -5%	EP	115	FR58AP	2I	26 (12)	Indoor-Outdoor	S60G11P76P
1	—	2 at -5%	EP	115	FR67P	2I	31 (14)	Indoor-Outdoor	S60G11P01P
1.5	—	2 at -5%	EP	115	FR67P	2I	42 (19)	Indoor-Outdoor	S60G11P16P
2	—	2 at -5%	EP	115	FR68P	2I	42 (19)	Indoor-Outdoor	S60G11P02P
3	—	2 at -5%	EP	115	FR176	2I	65 (30)	Indoor-Outdoor	S60G11S03N
5	—	2 at -5%	EP	115	FR177	2I	105 (48)	Indoor-Outdoor	S60G11S05N
7.5	—	2 at -5%	EP	115	FR178	2I	123 (56)	Indoor-Outdoor	S60G11S07N
10	—	2 at -5%	EP	115	FR179	2I	193 (88)	Indoor-Outdoor	S60G11S10N
15	—	4 at -2.5%	EP	115	FR180	527A	216 (98)	Indoor-Outdoor	S60J11S15N
25	—	4 at -2.5%	EP	115	FR182	527A	385 (175)	Indoor-Outdoor	S60J11S25N
25	2 at +2.5%	4 at -2.5%	EP	115	FR132	83B	395 (180)	Indoor-Outdoor	S60M11S25N

Notes

^① NEMA 3R, 304 stainless steel enclosure; 316 stainless steel enclosure available as an option.

Contact your local Eaton sales office for CE Mark transformer requirements. For other ratings or styles not shown, or for special enclosure types (including stainless steel), refer to Eaton. Frame drawings/dimensions information begins on **Page V2-T2-215**.

2.4

Transformers

General-Purpose Encapsulated Transformers

Single-Phase Shielded—Type EP, 60 Hz

2

120 x 240 Volts to 120/240 Volts

kVA	Full Capacity Taps		Type	°C Temp. Rise	Frame	Wiring Diagram Number	Weight Lbs (kg)	Weathershield	Style Number
	FCAN	FCBN							
3	—	—	EP	115	FR176	90B	50 (23)	Indoor–Outdoor	S10N11E03N
5	—	—	EP	115	FR177	90B	90 (41)	Indoor–Outdoor	S10N11E05N
7.5	—	—	EP	115	FR178	90B	123 (56)	Indoor–Outdoor	S10N11E07N
10	—	—	EP	115	FR179	90B	210 (95)	Indoor–Outdoor	S10N11E10N
15	—	—	EP	115	FR180	90B	205 (93)	Indoor–Outdoor	S10N11E15N
25	—	—	EP	115	FR182	90B	375 (170)	Indoor–Outdoor	S10N11E25N

120 Volts to 120 Volts

kVA	Full Capacity Taps		Type	°C Temp. Rise	Frame	Wiring Diagram Number	Weight Lbs (kg)	Weathershield	Style Number
	FCAN	FCBN							
3	—	—	EP	115	FR176	77A	60 (27)	Indoor–Outdoor	S12N12E03N
5	—	—	EP	115	FR177	77A	100 (45)	Indoor–Outdoor	S12N12E05N
7.5	—	—	EP	115	FR178	77A	123 (56)	Indoor–Outdoor	S12N12E07N
10	—	—	EP	115	FR179	77A	180 (82)	Indoor–Outdoor	S12N12E10N
15	—	—	EP	115	FR180	77A	216 (98)	Indoor–Outdoor	S12N12E15N
25	—	—	EP	115	FR182	77A	375 (170)	Indoor–Outdoor	S12N12E25N

208 Volts to 120/240 Volts

kVA	Full Capacity Taps		Type	°C Temp. Rise	Frame	Wiring Diagram Number	Weight Lbs (kg)	Weathershield	Style Number
	FCAN	FCBN							
3	—	—	EP	115	FR176	578A	60 (27)	Indoor–Outdoor	S29N11E03N
5	—	—	EP	115	FR177	578A	135 (61)	Indoor–Outdoor	S29N11E05N
7.5	—	—	EP	115	FR178	578A	95 (43)	Indoor–Outdoor	S29N11E07N
10	—	—	EP	115	FR179	578A	165 (75)	Indoor–Outdoor	S29N11E10N
15	—	—	EP	115	FR180	578A	185 (94)	Indoor–Outdoor	S29N11E15N
25	—	—	EP	115	FR182	578A	375 (170)	Indoor–Outdoor	S29N11E25N

208 Volts to 208 Volts

kVA	Full Capacity Taps		Type	°C Temp. Rise	Frame	Wiring Diagram Number	Weight Lbs (kg)	Weathershield	Style Number
	FCAN	FCBN							
3	—	—	EP	115	FR176	77B	65 (30)	Indoor–Outdoor	S29N29E03N
5	—	—	EP	115	FR177	77B	113 (51)	Indoor–Outdoor	S29N29E05N
7.5	—	—	EP	115	FR178	77B	123 (56)	Indoor–Outdoor	S29N29E07N
10	—	—	EP	115	FR179	77B	195 (89)	Indoor–Outdoor	S29N29E10N
15	—	—	EP	115	FR180	77B	216 (98)	Indoor–Outdoor	S29N29E15N
25	—	—	EP	115	FR182	77B	375 (170)	Indoor–Outdoor	S29N29E25N

Note

Contact your local Eaton sales office for CE Mark transformer requirements. For other ratings or styles not shown, or for special enclosure types (including stainless steel), refer to Eaton. Frame drawings/dimensions information begins on **Page V2-T2-215**.

Single-Phase Shielded—Type EP, 60 Hz

240 Volts to 240 Volts

kVA	Full Capacity Taps		Type	°C Temp. Rise	Frame	Wiring Diagram Number	Weight Lbs (kg)	Weathershield	Style Number
	FCAN	FCBN							
3	—	—	EP	115	FR176	77C	65 (30)	Indoor–Outdoor	S24N24E03N
5	—	—	EP	115	FR177	77C	113 (51)	Indoor–Outdoor	S24N24E05N
7.5	—	—	EP	115	FR178	77C	123 (56)	Indoor–Outdoor	S24N24E07N
10	—	—	EP	115	FR179	77C	193 (88)	Indoor–Outdoor	S24N24E10N
15	—	—	EP	115	FR180	77C	216 (98)	Indoor–Outdoor	S24N24E15N
25	—	—	EP	115	FR182	77C	375 (170)	Indoor–Outdoor	S24N24E25N

277 Volts to 120/240 Volts

kVA	Full Capacity Taps		Type	°C Temp. Rise	Frame	Wiring Diagram Number	Weight Lbs (kg)	Weathershield	Style Number
	FCAN	FCBN							
3	—	—	EP	115	FR176	513B	65 (30)	Indoor–Outdoor	S27N11E03N
5	—	—	EP	115	FR177	513B	113 (51)	Indoor–Outdoor	S27N11E05N
7.5	—	—	EP	115	FR178	513B	75 (34)	Indoor–Outdoor	S27N11E07N
10	—	—	EP	115	FR179	513B	162 (74)	Indoor–Outdoor	S27N11E10N
15	—	—	EP	115	FR180	513B	216 (98)	Indoor–Outdoor	S27N11E15N
25	—	—	EP	115	FR182	513B	375 (170)	Indoor–Outdoor	S27N11E25N

240 x 480 Volts to 120/240 Volts

kVA	Full Capacity Taps		Type	°C Temp. Rise	Frame	Wiring Diagram Number	Weight Lbs (kg)	Weathershield	Style Number
	FCAN	FCBN							
0.25	—	—	EP	115	FR57P	90A	12 (5)	Indoor–Outdoor	S20N11E26P
0.50	—	—	EP	115	FR57P	90A	16 (7)	Indoor–Outdoor	S20N11E51P
0.75	—	—	EP	115	FR58AP	90A	26 (12)	Indoor–Outdoor	S20N11E76P
1	—	—	EP	115	FR67P	90A	31 (14)	Indoor–Outdoor	S20N11E01P
1.5	—	—	EP	115	FR67P	90A	42 (19)	Indoor–Outdoor	S20N11E16P
2	—	—	EP	115	FR68P	90A	42 (19)	Indoor–Outdoor	S20N11E02P
3	—	—	EP	115	FR176	90A	65 (30)	Indoor–Outdoor	S20N11E03A
5	—	—	EP	115	FR177	90A	113 (51)	Indoor–Outdoor	S20N11E05A
7.5	—	—	EP	115	FR178	90A	123 (56)	Indoor–Outdoor	S20N11E07A
10	—	—	EP	115	FR179	90A	166 (75)	Indoor–Outdoor	S20N11E10A
15	—	—	EP	115	FR180	90A	216 (98)	Indoor–Outdoor	S20N11E15A
25	①	①	EP	115	FR182	526A	375 (170)	Indoor–Outdoor	S20L11E25A

Notes

① 2 at +5% FCAN at 240 volts; 4 at –2.5% FCBN at 480 volts.

Contact your local Eaton sales office for CE Mark transformer requirements. For other ratings or styles not shown, or for special enclosure types (including stainless steel), refer to Eaton. Frame drawings/dimensions information begins on **Page V2-T2-215**.

2.4

Transformers

General-Purpose Encapsulated Transformers

Three-Phase Encapsulated—Type EPT, 60 Hz

2

240 Delta Volts to 208Y/120 Volts

kVA	Full Capacity Taps		Type	°C Temp. Rise	Frame	Wiring Diagram Number	Weight Lbs (kg)	Weathershield	Style Number
	FCAN	FCBN							
9	—	2 at -5%	EPT	115	FR103	70C	190 (86)	Indoor-Outdoor	Y24G28T09N ①
15	—	2 at -5%	EPT	115	FR95	70C	275 (125)	Indoor-Outdoor	Y24G28T15N ①
30	2 at +2.5%	4 at -2.5%	EPT	115	FR243	84C	422 (191)	Indoor-Outdoor	Y24M28T30N
45	2 at +2.5%	4 at -2.5%	EPT	115	FR244	84C	660 (299)	Indoor-Outdoor	Y24M28T45N

380 Delta Volts to 190Y/110 Volts

kVA	Full Capacity Taps		Type	°C Temp. Rise	Frame	Wiring Diagram Number	Weight Lbs (kg)	Weathershield	Style Number
	FCAN	FCBN							
3	—	2 at -5%	EPT	115	FR201	70F	116 (53)	Indoor-Outdoor	Y38G19T03A ①
6	—	2 at -5%	EPT	115	FR200	70F	165 (75)	Indoor-Outdoor	Y38G19T06A ①
9	—	2 at -5%	EPT	115	FR95	70F	275 (125)	Indoor-Outdoor	Y38G19T09A ①
15	—	2 at -5%	EPT	115	FR95	72R	275 (125)	Indoor-Outdoor	Y38G19T15A ①
30	2 at +2.5%	4 at -2.5%	EPT	115	FR243	84AC	422 (191)	Indoor-Outdoor	Y38M19T30A
45	2 at +2.5%	4 at -2.5%	EPT	115	FR244	84AC	660 (299)	Indoor-Outdoor	Y38M19T45A
75	2 at +2.5%	4 at -2.5%	EPT	115	FR245	84AC	1275 (580)	Indoor-Outdoor	Y38M19T75A ②

380 Delta Volts to 208Y/120 Volts

kVA	Full Capacity Taps		Type	°C Temp. Rise	Frame	Wiring Diagram Number	Weight Lbs (kg)	Weathershield	Style Number
	FCAN	FCBN							
3	—	2 at -5%	EPT	115	FR201	70D	116 (53)	Indoor-Outdoor	Y38G28T03A ①
6	—	2 at -5%	EPT	115	FR200	70F	165 (75)	Indoor-Outdoor	Y38G28T06A ①
9	—	2 at -5%	EPT	115	FR103	70D	185 (84)	Indoor-Outdoor	Y38G28T09A ①
15	—	2 at -5%	EPT	115	FR95	70D	275 (125)	Indoor-Outdoor	Y38G28T15A ①
30	2 at +2.5%	4 at -2.5%	EPT	115	FR243	84H	422 (191)	Indoor-Outdoor	Y38M28T30A
45	2 at +2.5%	4 at -2.5%	EPT	115	FR244	84R	660 (299)	Indoor-Outdoor	Y38M28T45A
75	2 at +2.5%	4 at -2.5%	EPT	115	FR245	84R	1275 (580)	Indoor-Outdoor	Y38M28T75A ②

Notes

① T-T (Scott T) connected secondary.

② Floor-mount only.

Contact your local Eaton sales office for CE Mark transformer requirements. For other ratings or styles not shown, or for special enclosure types (including stainless steel), refer to Eaton. Frame drawings/dimensions information begins on **Page V2-T2-215**.

General-Purpose Encapsulated Transformers

Three-Phase Encapsulated—Type EPT, 60 Hz

380 Delta Volts to 220Y/127 Volts

kVA	Full Capacity Taps		Type	°C Temp. Rise	Frame	Wiring Diagram Number	Weight Lbs (kg)	Weathershield	Style Number
	FCAN	FCBN							
3	—	2 at -5%	EPT	115	FR201	70F	116 (53)	Indoor-Outdoor	Y38G31T03A ①
6	—	2 at -5%	EPT	115	FR200	70F	165 (75)	Indoor-Outdoor	Y38G31T06A ①
9	—	2 at -5%	EPT	115	FR103	70M	195 (89)	Indoor-Outdoor	Y38G31T09A ①
15	—	2 at -5%	EPT	115	FR95	70F	275 (125)	Indoor-Outdoor	Y38G31T15A ①
30	2 at +2.5%	4 at -2.5%	EPT	115	FR243	84R	422 (191)	Indoor-Outdoor	Y38M31T30A
45	2 at +2.5%	4 at -2.5%	EPT	115	FR244	84R	660 (299)	Indoor-Outdoor	Y38M31T45A
75	2 at +2.5%	4 at -2.5%	EPT	115	FR245	84R	1275 (580)	Indoor-Outdoor	Y38M31T75A ②

380 Delta Volts to 220 Delta Volts

kVA	Full Capacity Taps		Type	°C Temp. Rise	Frame	Wiring Diagram Number	Weight Lbs (kg)	Weathershield	Style Number
	FCAN	FCBN							
3	—	2 at -5%	EPT	115	FR201	74K	116 (53)	Indoor-Outdoor	Y38G25T03A ①
6	—	2 at -5%	EPT	115	FR200	74K	180 (82)	Indoor-Outdoor	Y38G25T06A ①
9	—	2 at -5%	EPT	115	FR103	74K	195 (89)	Indoor-Outdoor	Y38G25T09A ①
15	—	2 at -5%	EPT	115	FR95	74K	275 (125)	Indoor-Outdoor	Y38G25T15A ①
30	2 at +2.5%	4 at -2.5%	EPT	115	FR243	③	422 (191)	Indoor-Outdoor	Y38M25T30A
45	2 at +2.5%	4 at -2.5%	EPT	115	FR244	③	660 (299)	Indoor-Outdoor	Y38M25T45A
75	2 at +2.5%	4 at -2.5%	EPT	115	FR245	③	1275 (580)	Indoor-Outdoor	Y38M25T75A ②

380 Delta Volts to 380Y/220 Volts

kVA	Full Capacity Taps		Type	°C Temp. Rise	Frame	Wiring Diagram Number	Weight Lbs (kg)	Weathershield	Style Number
	FCAN	FCBN							
3	—	2 at -5%	EPT	115	FR201	70D	116 (53)	Indoor-Outdoor	Y38G37T03A ①
6	—	2 at -5%	EPT	115	FR200	70D	165 (75)	Indoor-Outdoor	Y38G37T06A ①
9	—	2 at -5%	EPT	115	FR103	70D	180 (82)	Indoor-Outdoor	Y38G37T09A ①
15	—	2 at -5%	EPT	115	FR95	70D	275 (125)	Indoor-Outdoor	Y38G37T15A ①
30	2 at +2.5%	4 at -2.5%	EPT	115	FR243	84H	422 (191)	Indoor-Outdoor	Y38M37T30A
45	2 at +2.5%	4 at -2.5%	EPT	115	FR244	84H	660 (299)	Indoor-Outdoor	Y38M37T45A
75	2 at +2.5%	4 at -2.5%	EPT	115	FR245	84H	1275 (580)	Indoor-Outdoor	Y38M37T75A ②

380 Delta Volts to 480Y/277 Volts

kVA	Full Capacity Taps		Type	°C Temp. Rise	Frame	Wiring Diagram Number	Weight Lbs (kg)	Weathershield	Style Number
	FCAN	FCBN							
3	—	2 at -5%	EPT	115	FR201	70F	116 (53)	Indoor-Outdoor	Y38G47T03A ①
6	—	2 at -5%	EPT	115	FR200	70F	180 (82)	Indoor-Outdoor	Y38G47T06A ①
9	—	2 at -5%	EPT	115	FR103	70F	166 (75)	Indoor-Outdoor	Y38G47T09A ①
15	—	2 at -5%	EPT	115	FR95	70F	275 (125)	Indoor-Outdoor	Y38G47T15A ①
30	2 at +2.5%	4 at -2.5%	EPT	115	FR243	84AB	422 (191)	Indoor-Outdoor	Y38M47T30A
45	2 at +2.5%	4 at -2.5%	EPT	115	FR244	84AB	660 (299)	Indoor-Outdoor	Y38M47T45A
75	2 at +2.5%	4 at -2.5%	EPT	115	FR245	84AB	1275 (580)	Indoor-Outdoor	Y38M47T75A ②

Notes

- ① T-T (Scott T) connected secondary.
- ② Floor-mount only.
- ③ Refer to your Eaton sales office.

Contact your local Eaton sales office for CE Mark transformer requirements. For other ratings or styles not shown, or for special enclosure types (including stainless steel), refer to Eaton. Frame drawings/dimensions information begins on **Page V2-T2-215**.

Three-Phase Encapsulated—Type EPT, 60 Hz

2

416 Delta Volts to 208Y/120 Volts

kVA	Full Capacity Taps		Type	°C Temp. Rise	Frame	Wiring Diagram Number	Weight Lbs (kg)	Weathershield	Style Number
	FCAN	FCBN							
3	—	2 at -5%	EPT	115	FR201	70V	116 (53)	Indoor-Outdoor	Y43G28T03A ①
6	—	2 at -5%	EPT	115	FR200	70V	175 (79)	Indoor-Outdoor	Y43G28T06A ①
9	—	2 at -5%	EPT	115	FR103	70V	190 (86)	Indoor-Outdoor	Y43G28T09A ①
15	—	2 at -5%	EPT	115	FR95	70V	275 (125)	Indoor-Outdoor	Y43G28T15A ①
30	2 at +2.5%	4 at -2.5%	EPT	115	FR243	84I	422 (191)	Indoor-Outdoor	Y43M28T30A
45	2 at +2.5%	4 at -2.5%	EPT	115	FR244	84I	660 (299)	Indoor-Outdoor	Y43M28T45A
75	2 at +2.5%	4 at -2.5%	EPT	115	FR245	84I	1275 (580)	Indoor-Outdoor	Y43M28T75A ②

440 Delta Volts to 220Y/127 Volts

kVA	Full Capacity Taps		Type	°C Temp. Rise	Frame	Wiring Diagram Number	Weight Lbs (kg)	Weathershield	Style Number
	FCAN	FCBN							
3	—	2 at -5%	EPT	115	FR201	70G	116 (53)	Indoor-Outdoor	Y44G31T03A ①
6	—	2 at -5%	EPT	115	FR200	70G	165 (75)	Indoor-Outdoor	Y44G31T06A ①
9	—	2 at -5%	EPT	115	FR103	70G	166 (75)	Indoor-Outdoor	Y44G31T09A ①
15	—	2 at -5%	EPT	115	FR95	70G	275 (125)	Indoor-Outdoor	Y44G31T15A ①
30	2 at +2.5%	4 at -2.5%	EPT	115	FR243	84O	422 (191)	Indoor-Outdoor	Y44M31T30A ②
45	2 at +2.5%	4 at -2.5%	EPT	115	FR244	84O	660 (299)	Indoor-Outdoor	Y44M31T45A
75	2 at +2.5%	4 at -2.5%	EPT	115	FR245	84O	1275 (580)	Indoor-Outdoor	Y44M31T75A ②

480 Delta Volts to 208Y/120 Volts

kVA	Full Capacity Taps		Type	°C Temp. Rise	Frame	Wiring Diagram Number	Weight Lbs (kg)	Weathershield	Style Number
	FCAN	FCBN							
3	—	2 at -5%	EPT	115	FR201	70A	116 (52)	Indoor-Outdoor	Y48G28T03N ①
6	—	2 at -5%	EPT	115	FR200	70A	165 (75)	Indoor-Outdoor	Y48G28T06N ①
6	2 at +2.5%	2 at -2.5%	EPT	115	FR200	72B	165 (75)	Indoor-Outdoor	Y48D28T06N ①
9	—	2 at -5%	EPT	115	FR103	70A	166 (75)	Indoor-Outdoor	Y48G28T09N ①
9	—	4 at -2.5%	EPT	115	FR103	503A	185 (84)	Indoor-Outdoor	Y48J28T09N ①
9	2 at +2.5%	2 at -2.5%	EPT	115	FR103	72B	185 (84)	Indoor-Outdoor	Y48D28T09N ①
15	—	2 at -5%	EPT	115	FR95	70A	275 (125)	Indoor-Outdoor	Y48G28T15N ①
15	—	4 at -2.5%	EPT	115	FR95	503A	275 (125)	Indoor-Outdoor	Y48J28T15N ①
15	2 at +2.5%	2 at -2.5%	EPT	115	FR95	72B	275 (125)	Indoor-Outdoor	Y48D28T15N ①
30	2 at +2.5%	4 at -2.5%	EPT	115	FR243	84A	422 (191)	Indoor-Outdoor	Y48M28T30N
45	2 at +2.5%	4 at -2.5%	EPT	115	FR244	84A	720 (327)	Indoor-Outdoor	Y48M28T45N
75	2 at +2.5%	4 at -2.5%	EPT	115	FR245	84A	1275 (580)	Indoor-Outdoor	Y48M28T75N ②

480 Delta Volts to 208Y/120 Volts—Copper Windings

kVA	Full Capacity Taps		Type	°C Temp. Rise	Frame	Wiring Diagram Number	Weight Lbs (kg)	Weathershield	Style Number
	FCAN	FCBN							
15	2 at +2.5%	2 at -2.5%	EPT	115	FR95	72B	300 (136)	Indoor-Outdoor	Y48D28T15CU ①
30	2 at +2.5%	4 at -2.5%	EPT	115	FR243	84A	505 (230)	Indoor-Outdoor	Y48M28T30CU
45	2 at +2.5%	4 at -2.5%	EPT	115	FR244	84A	810 (368)	Indoor-Outdoor	Y48M28T45CU
75	2 at +2.5%	4 at -2.5%	EPT	115	FR245	84A	1450 (659)	Indoor-Outdoor	Y48M28T75CU ②③

Notes

- ① T-T (Scott T) connected secondary.
- ② Floor-mount only.
- ③ Not CSA certified.

Contact your local Eaton sales office for CE Mark transformer requirements. For other ratings or styles not shown, or for special enclosure types (including stainless steel), refer to Eaton. Frame drawings/dimensions information begins on [Page V2-T2-215](#).

General-Purpose Encapsulated Transformers

Three-Phase Encapsulated—Type EPT, 60 Hz

480 Delta Volts to 208Y/120 Volts Stainless Steel ③

kVA	Full Capacity Taps		Type	°C Temp. Rise	Frame	Wiring Diagram Number	Weight Lbs (kg)	Weathershield	Style Number
	FCAN	FCBN							
3	—	2 at -5%	EPT	115	FR201	70A	116 (53)	Indoor-Outdoor	Y48G28T03SS ①
6	2 at +2.5%	2 at -2.5%	EPT	115	FR200	72B	175 (79)	Indoor-Outdoor	Y48D28T06SS ①
9	2 at +2.5%	2 at -2.5%	EPT	115	FR103	72B	185 (84)	Indoor-Outdoor	Y48D28T09SS ①
15	2 at +2.5%	2 at -2.5%	EPT	115	FR95	72B	275 (125)	Indoor-Outdoor	Y48D28T15SS ①
30	2 at +2.5%	4 at -2.5%	EPT	115	FR243	84A	422 (191)	Indoor-Outdoor	Y48M28T30SS
45	2 at +2.5%	4 at -2.5%	EPT	115	FR244	84A	660 (299)	Indoor-Outdoor	Y48M28T45SS
75	2 at +2.5%	4 at -2.5%	EPT	115	FR245	84A	1275 (580)	Indoor-Outdoor	Y48M28T75SS ②

480 Delta Volts to 208Y/120 Volts Stainless Steel—Copper Windings ③

kVA	Full Capacity Taps		Type	°C Temp. Rise	Frame	Wiring Diagram Number	Weight Lbs (kg)	Weathershield	Style Number
	FCAN	FCBN							
15	2 at +2.5%	2 at -2.5%	EPT	115	FR95p	72B	275 (125)	Indoor-Outdoor	Y48D28T15CUSS ①
30	2 at +2.5%	4 at -2.5%	EPT	115	FR243p	84A	504 (229)	Indoor-Outdoor	Y48M28T30CUSS
45	2 at +2.5%	4 at -2.5%	EPT	115	FR244p	84A	810 (368)	Indoor-Outdoor	Y48M28T45CUSS

480 Delta Volts to 220Y/127 Volts

kVA	Full Capacity Taps		Type	°C Temp. Rise	Frame	Wiring Diagram Number	Weight Lbs (kg)	Weathershield	Style Number
	FCAN	FCBN							
3	—	2 at -5%	EPT	115	FR201	70K	116 (53)	Indoor-Outdoor	Y48G31T03A ①
6	—	2 at -5%	EPT	115	FR200	70K	175 (79)	Indoor-Outdoor	Y48G31T06A ①
9	—	2 at -5%	EPT	115	FR103	70A	185 (84)	Indoor-Outdoor	Y48G31T09A ①
15	—	2 at -5%	EPT	115	FR95	70A	275 (125)	Indoor-Outdoor	Y48G31T15A ①
30	2 at +2.5%	4 at -2.5%	EPT	115	FR243	84A	422 (191)	Indoor-Outdoor	Y48M31T30A
45	2 at +2.5%	4 at -2.5%	EPT	115	FR244	84A	660 (299)	Indoor-Outdoor	Y48M31T45A
75	2 at +2.5%	4 at -2.5%	EPT	115	FR245	84K	1275 (580)	Indoor-Outdoor	Y48M31T75A ②

480 Delta Volts to 240 Delta Volts

kVA	Full Capacity Taps		Type	°C Temp. Rise	Frame	Wiring Diagram Number	Weight Lbs (kg)	Weathershield	Style Number
	FCAN	FCBN							
3	—	2 at -5%	EPT	115	FR201	74A	116 (52)	Indoor-Outdoor	Y48G24T03N ①④
6	—	2 at -5%	EPT	115	FR200	74A	165 (75)	Indoor-Outdoor	Y48G24T06N ①④
9	—	4 at -2.5%	EPT	115	FR103	73A	185 (84)	Indoor-Outdoor	Y48J24T09N ①④
15	—	4 at -2.5%	EPT	115	FR95	73A	275 (125)	Indoor-Outdoor	Y48J24T15N ①④
30	2 at +2.5%	4 at -2.5%	EPT	115	FR243	85A	422 (191)	Indoor-Outdoor	Y48M24T30N ④
45	2 at +2.5%	4 at -2.5%	EPT	115	FR244	85A	660 (299)	Indoor-Outdoor	Y48M24T45N ④

Notes

- ① T-T connected secondary.
- ② Floor-mount only.
- ③ NEMA 3R, 304 stainless steel enclosure; 316 stainless steel enclosure available.
- ④ Do not include 120 volt lighting tap.

Contact your local Eaton sales office for CE Mark transformer requirements. For other ratings or styles not shown, or for special enclosure types (including stainless steel), refer to Eaton. Frame drawings/dimensions information begins on **Page V2-T2-215**.

Three-Phase Encapsulated—Type EPT, 60 Hz

2

480 Delta Volts to 380Y/220 Volts

kVA	Full Capacity Taps		Type	°C Temp. Rise	Frame	Wiring Diagram Number	Weight Lbs (kg)	Weathershield	Style Number
	FCAN	FCBN							
3	—	2 at -5%	EPT	115	FR201	70A	116 (53)	Indoor-Outdoor	Y48G37T03A ①
6	—	2 at -5%	EPT	115	FR200	70R	165 (75)	Indoor-Outdoor	Y48G37T06A ①
9	—	2 at -5%	EPT	115	FR103	70R	185 (84)	Indoor-Outdoor	Y48G37T09A ①
15	—	2 at -5%	EPT	115	FR95	70R	275 (125)	Indoor-Outdoor	Y48G37T15A ①
30	2 at +2.5%	4 at -2.5%	EPT	115	FR243	84A	422 (191)	Indoor-Outdoor	Y48M37T30A
45	2 at +2.5%	4 at -2.5%	EPT	115	FR244	84A	660 (299)	Indoor-Outdoor	Y48M37T45A
75	2 at +2.5%	4 at -2.5%	EPT	115	FR245	84A	1275 (580)	Indoor-Outdoor	Y48M37T75A ②

480 Delta Volts to 380 Delta Volts

kVA	Full Capacity Taps		Type	°C Temp. Rise	Frame	Wiring Diagram Number	Weight Lbs (kg)	Weathershield	Style Number
	FCAN	FCBN							
3	—	2 at -5%	EPT	115	FR201	74B	116 (53)	Indoor-Outdoor	Y48G38T03A ①
6	—	2 at -5%	EPT	115	FR200	74B	165 (75)	Indoor-Outdoor	Y48G38T06A ①
9	—	2 at -5%	EPT	115	FR103	74B	185 (84)	Indoor-Outdoor	Y48G38T09A ①
15	—	2 at -5%	EPT	115	FR95	74A	275 (125)	Indoor-Outdoor	Y48G38T15A ①
30	2 at +2.5%	4 at -2.5%	EPT	115	FR243	85A	422 (191)	Indoor-Outdoor	Y48M38T30A
45	2 at +2.5%	4 at -2.5%	EPT	115	FR244	85A	660 (299)	Indoor-Outdoor	Y48M38T45A
75	2 at +2.5%	4 at -2.5%	EPT	115	FR245	85A	1275 (580)	Indoor-Outdoor	Y48M38T75A ②

480 Delta Volts to 416Y/240 Volts

kVA	Full Capacity Taps		Type	°C Temp. Rise	Frame	Wiring Diagram Number	Weight Lbs (kg)	Weathershield	Style Number
	FCAN	FCBN							
3	—	2 at -5%	EPT	115	FR200	70A	165 (75)	Indoor-Outdoor	Y48G51T03A ①
6	—	2 at -5%	EPT	115	FR200	70A	185 (84)	Indoor-Outdoor	Y48G51T06A ①
9	—	2 at -5%	EPT	115	FR103	70S	185 (84)	Indoor-Outdoor	Y48G51T09A ①
15	—	2 at -5%	EPT	115	FR95	70S	275 (125)	Indoor-Outdoor	Y48G51T15A ①
30	2 at +2.5%	4 at -2.5%	EPT	115	FR243	84A	422 (191)	Indoor-Outdoor	Y48M51T30A
45	2 at +2.5%	4 at -2.5%	EPT	115	FR244	84A	660 (299)	Indoor-Outdoor	Y48M51T45A
75	2 at +2.5%	4 at -2.5%	EPT	115	FR245	84A	1275 (580)	Indoor-Outdoor	Y48M51T75A ②

480 Delta Volts to 440Y/254 Volts

kVA	Full Capacity Taps		Type	°C Temp. Rise	Frame	Wiring Diagram Number	Weight Lbs (kg)	Weathershield	Style Number
	FCAN	FCBN							
3	—	2 at -5%	EPT	115	FR201	70A	116 (53)	Indoor-Outdoor	Y48G35T03A ①
6	—	2 at -5%	EPT	115	FR200	70A	185 (84)	Indoor-Outdoor	Y48G35T06A ①
9	—	2 at -5%	EPT	115	FR103	70A	185 (84)	Indoor-Outdoor	Y48G35T09A ①
15	—	2 at -5%	EPT	115	FR95	70A	275 (125)	Indoor-Outdoor	Y48G35T15A ①
30	2 at +2.5%	4 at -2.5%	EPT	115	FR243	84A	422 (191)	Indoor-Outdoor	Y48M35T30A
45	2 at +2.5%	4 at -2.5%	EPT	115	FR244	84A	660 (299)	Indoor-Outdoor	Y48M35T45A
75	2 at +2.5%	4 at -2.5%	EPT	115	FR245	84A	1275 (580)	Indoor-Outdoor	Y48M35T75A ②

Notes

① T-T connected secondary.

② Floor-mount only.

Contact your local Eaton sales office for CE Mark transformer requirements. For other ratings or styles not shown, or for special enclosure types (including stainless steel), refer to Eaton. Frame drawings/dimensions information begins on **Page V2-T2-215**.

General-Purpose Encapsulated Transformers

Three-Phase Encapsulated—Type EPT, 60 Hz

480 Delta Volts to 480Y/277 Volts

kVA	Full Capacity Taps		Type	°C Temp. Rise	Frame	Wiring Diagram Number	Weight Lbs (kg)	Weathershield	Style Number
	FCAN	FCBN							
9	2 at +2.5%	2 at -2.5%	EPT	115	FR103	72C	190 (86)	Indoor-Outdoor	Y48D47T09N ①
15	2 at +2.5%	2 at -2.5%	EPT	115	FR95	72C	275 (125)	Indoor-Outdoor	Y48D47T15N ①
30	2 at +2.5%	4 at -2.5%	EPT	115	FR243	84A	422 (191)	Indoor-Outdoor	Y48M47T30N
45	2 at +2.5%	4 at -2.5%	EPT	115	FR244	84A	660 (299)	Indoor-Outdoor	Y48M47T45N

600 Delta Volts to 208Y/120 Volts

kVA	Full Capacity Taps		Type	°C Temp. Rise	Frame	Wiring Diagram Number	Weight Lbs (kg)	Weathershield	Style Number
	FCAN	FCBN							
9	—	2 at -5%	EPT	115	FR103	70B	185 (84)	Indoor-Outdoor	Y60G28T09N ①
15	—	2 at -5%	EPT	115	FR95	70B	275 (125)	Indoor-Outdoor	Y60G28T15N ①
30	2 at +2.5%	4 at -2.5%	EPT	115	FR243	84B	422 (191)	Indoor-Outdoor	Y60M28T30N
45	2 at +2.5%	4 at -2.5%	EPT	115	FR244	84B	660 (299)	Indoor-Outdoor	Y60M28T45N

Three-Phase Shielded—Type EPT, 60 Hz

480 Delta Volts to 208Y/120 Volts

kVA	Full Capacity Taps		Type	°C Temp. Rise	Frame	Wiring Diagram Number	Weight Lbs (kg)	Weathershield	Style Number
	FCAN	FCBN							
3	2 at +2.5%	2 at -2.5%	EPT	115	FR201	86B	116 (52)	Indoor-Outdoor	Y48D28E03A ①
6	2 at +2.5%	2 at -2.5%	EPT	115	FR200	86B	165 (75)	Indoor-Outdoor	Y48D28E06A ①
9	2 at +2.5%	2 at -2.5%	EPT	115	FR103	86B	190 (86)	Indoor-Outdoor	Y48D28E09N ①
15	2 at +2.5%	2 at -2.5%	EPT	115	FR95	86B	275 (125)	Indoor-Outdoor	Y48D28E15B ①

480 Delta Volts to 240 Delta Volts

kVA	Full Capacity Taps		Type	°C Temp. Rise	Frame	Wiring Diagram Number	Weight Lbs (kg)	Weathershield	Style Number
	FCAN	FCBN							
3	—	2 at -5%	EPT	115	FR201	88A	116 (52)	Indoor-Outdoor	Y48G24E03A ①
6	—	2 at -5%	EPT	115	FR200	88A	165 (75)	Indoor-Outdoor	Y48G24E06A ①
9	—	4 at -2.5%	EPT	115	FR103	505B	195 (89)	Indoor-Outdoor	Y48J24E09A ①
15	—	4 at -2.5%	EPT	115	FR95	505B	275 (125)	Indoor-Outdoor	Y48J24E15A ①

Notes

① T-T connected secondary.

Contact your local Eaton sales office for CE Mark transformer requirements. For other ratings or styles not shown, or for special enclosure types (including stainless steel), refer to Eaton. Frame drawings/dimensions information begins on **Page V2-T2-215**.

2.4

Transformers

General-Purpose Encapsulated Transformers

NEMA Type 4X Single-Phase Encapsulated—Type EP, 60 Hz, Grade 304 Stainless Steel ①

2

240 x 480 Volts to 120/240 Volts—Aluminum Windings

kVA	Full Capacity Taps		Type	°C Temp. Rise	Frame	Wiring Diagram Number	Weight Lbs (kg)	Weathershield	Style Number
	FCAN	FCBN							
0.100 ②	—	—	EP	115	FR544X	3A	7 (3)	Indoor–Outdoor	S20N11S82SS4X
0.015 ②	—	—	EP	115	FR554X	3A	9 (4)	Indoor–Outdoor	S20N11S83SS4X
0.250 ②	—	—	EP	115	FR57P4X	3A	15 (7)	Indoor–Outdoor	S20N11P26SS4X
0.500 ②	—	—	EP	115	FR57P4X	3A	14 (6)	Indoor–Outdoor	S20N11P51SS4X
0.750 ②	—	—	EP	115	FR58AP4X	3A	22 (10)	Indoor–Outdoor	S20N11P76SS4X
1 ②	—	—	EP	115	FR67P4X	3A	30 (14)	Indoor–Outdoor	S20N11P01SS4X
1.5 ②	—	—	EP	115	FR67P4X	3A	41 (19)	Indoor–Outdoor	S20N11P16SS4X
2 ②	—	—	EP	115	FR68P4X	3A	75 (34)	Indoor–Outdoor	S20N11P02SS4X
3	—	—	EP	115	FR1764X	3A	68 (31)	Indoor–Outdoor	S20N11S03SS4X
3	③	③	EP	115	FR1764X	9A	67 (30)	Indoor–Outdoor	S20K11S03SS4X
5	—	—	EP	115	FR1774X	3A	107 (49)	Indoor–Outdoor	S20N11S05SS4X
5	③	③	EP	115	FR1774X	9A	105 (48)	Indoor–Outdoor	S20K11S05SS4X
7.5	—	—	EP	115	FR1784X	3A	129 (58)	Indoor–Outdoor	S20N11S07SS4X
7.5	③	③	EP	115	FR1784X	9A	130 (59)	Indoor–Outdoor	S20K11S07SS4X
10	—	—	EP	115	FR1794X	3A	196 (89)	Indoor–Outdoor	S20N11S10SS4X
10	③	③	EP	115	FR1794X	9A	198 (90)	Indoor–Outdoor	S20K11S10SS4X
15	—	—	EP	115	FR1804X	3A	215 (98)	Indoor–Outdoor	S20N11S15SS4X
15	③	③	EP	115	FR1804X	23A	215 (98)	Indoor–Outdoor	S20L11S15SS4X
25	—	—	EP	115	FR1824X	3A	393 (178)	Indoor–Outdoor	S20N11S25SS4X
25	④	④	EP	115	FR1824X	23A	453 (206)	Indoor–Outdoor	S20L11S25SS4X
37.5	④	④	EP	115	FR300A4X	248A	735 (334)	Indoor–Outdoor	S20L11S37SS4X ⑤

Notes

- ① Grade 304 stainless steel standard. Grade 316 stainless steel available as an option. Replace suffix “SS” with suffix “S6.”
- ② Copper windings provided as standard.
- ③ 1 at +10% FCBN at 240 volts; 2 at –5% FCBN at 480 volts.
- ④ 2 at +5% FCBN at 240 volts; 4 at –2.5% FCBN at 480 volts.
- ⑤ Floor-mount only.

Contact your local Eaton sales office for voltage combinations not shown in the above table. Other voltages and custom features are available upon request.

General-Purpose Encapsulated Transformers

NEMA Type 4X Single-Phase Encapsulated—Type EP, 60 Hz, Grade 304 Stainless Steel ①

240 x 480 Volts to 120/240 Volts—Copper Windings

2

kVA	Full Capacity Taps		Type	°C Temp. Rise	Frame	Wiring Diagram Number	Weight Lbs (kg)	Weathershield	Style Number
	FCAN	FCBN							
0.100 ②	—	—	EP	115	FR544X	3A	7 (3)	Indoor–Outdoor	S20N11S82SS4X
0.015 ②	—	—	EP	115	FR554X	3A	9 (4)	Indoor–Outdoor	S20N11S83SS4X
0.250 ②	—	—	EP	115	FR57P4X	3A	15 (7)	Indoor–Outdoor	S20N11P26SS4X
0.500 ②	—	—	EP	115	FR57P4X	3A	14 (6)	Indoor–Outdoor	S20N11P51SS4X
0.750 ②	—	—	EP	115	FR58AP4X	3A	22 (10)	Indoor–Outdoor	S20N11P76SS4X
1 ②	—	—	EP	115	FR67P4X	3A	30 (14)	Indoor–Outdoor	S20N11P01SS4X
1.5 ②	—	—	EP	115	FR68P4X	3A	41 (19)	Indoor–Outdoor	S20N11P02SS4X
2 ②	—	—	EP	115	FR68P4X	3A	36 (16)	Indoor–Outdoor	S20N11P16SS4X
3	—	—	EP	115	FR1764X	3A	76 (34)	Indoor–Outdoor	S20N11S03CUSS4X
3	③	③	EP	115	FR1764X	9A	77 (35)	Indoor–Outdoor	S20K11S03CUSS4X
5	—	—	EP	115	FR1774X	3A	135 (61)	Indoor–Outdoor	S20N11S05CUSS4X
5	③	③	EP	115	FR1774X	9A	121 (55)	Indoor–Outdoor	S20K11S05CUSS4X
7.5	—	—	EP	115	FR1784X	3A	144 (65)	Indoor–Outdoor	S20N11S07CUSS4X
7.5	③	③	EP	115	FR1784X	9A	146 (66)	Indoor–Outdoor	S20K11S07CUSS4X
10	—	—	EP	115	FR1794X	3A	229 (104)	Indoor–Outdoor	S20N11S10CUSS4X
10	③	③	EP	115	FR1794X	9A	219 (99)	Indoor–Outdoor	S20K11S10CUSS4X
15	—	—	EP	115	FR1804X	3A	236 (107)	Indoor–Outdoor	S20N11S15CUSS4X
15	③	③	EP	115	FR1804X	23A	236 (107)	Indoor–Outdoor	S20L11S15CUSS4X
25	—	—	EP	115	FR300A4X	3A	388 (176)	Indoor–Outdoor	S20N11S25CUSS4X
25	④	④	EP	115	FR300A4X	23A	388 (176)	Indoor–Outdoor	S20L11S25CUSS4X
37.5	④	④	EP	115	FR300A4X	248A	775 (352)	Indoor–Outdoor	S20L11S37CUSS4X ⑤

Notes

① Grade 304 stainless steel standard. Grade 316 stainless steel available as an option. Replace suffix “SS” with suffix “S6.”

② Copper windings provided as standard.

③ 1 at +10% FCBN at 240 volts; 2 at –5% FCBN at 480 volts.

④ 2 at +5% FCBN at 240 volts; 4 at –2.5% FCBN at 480 volts.

⑤ Floor-mount only.

Contact your local Eaton sales office for voltage combinations not shown in the above table. Other voltages and custom features are available upon request.

NEMA Type 4X Three-Phase Encapsulated—Type EPT, 60 Hz, Grade 304 Stainless Steel ①

2

480 Delta Volts to 208Y/120 Volts—Aluminum Windings

kVA	Full Capacity Taps		Type	°C Temp. Rise	Frame	Wiring Diagram Number	Weight Lbs (kg)	Weathershield	Style Number
	FCAN	FCBN							
3	—	2 at -5%	EPT	115	FR2014X	70A	125 (57)	Indoor-Outdoor	Y48G28T03SS4X ②
6	—	2 at -5%	EPT	115	FR2004X	70A	165 (75)	Indoor-Outdoor	Y48G28T06SS4X ②
6	2 at +2.5%	2 at -2.5%	EPT	115	FR2004X	72B	171 (78)	Indoor-Outdoor	Y48D28T06SS4X ②
9	—	2 at -5%	EPT	115	FR1034X	70A	180 (82)	Indoor-Outdoor	Y48G28T09SS4X ②
9	—	4 at -2.5%	EPT	115	FR1034X	503A	192 (87)	Indoor-Outdoor	Y48J28T09SS4X ②
9	2 at +2.5%	2 at -2.5%	EPT	115	FR1034X	72B	196 (89)	Indoor-Outdoor	Y48D28T09SS4X ②
15	2 at +2.5%	2 at -2.5%	EPT	115	FR954X	72B	281 (127)	Indoor-Outdoor	Y48D28T15SS4X ②
15	—	2 at -5%	EPT	115	FR954X	70A	269 (122)	Indoor-Outdoor	Y48G28T15SS4X ②
15	—	4 at -2.5%	EPT	115	FR954X	503A	268 (121)	Indoor-Outdoor	Y48J28T15SS4X ②
30	2 at +2.5%	4 at -2.5%	EPT	115	FR2434X	84A	539 (245)	Indoor-Outdoor	Y48M28T30SS4X
45	2 at +2.5%	4 at -2.5%	EPT	115	FR2444X	84A	723 (328)	Indoor-Outdoor	Y48M28T45SS4X
75	2 at +2.5%	4 at -2.5%	EPT	115	FR2454X	84A	1277 (580)	Indoor-Outdoor	Y48M28T75SS4X ③

480 Delta Volts to 208Y/120 Volts—Copper Windings

kVA	Full Capacity Taps		Type	°C Temp. Rise	Frame	Wiring Diagram Number	Weight Lbs (kg)	Weathershield	Style Number
	FCAN	FCBN							
3	—	2 at -5%	EPT	115	FR2014X	70A	139 (63)	Indoor-Outdoor	Y48G28T03CUSS4X ②
6	—	2 at -5%	EPT	115	FR2004X	70A	187 (84)	Indoor-Outdoor	Y48G28T06CUSS4X ②
6	2 at +2.5%	2 at -2.5%	EPT	115	FR2004X	72B	188 (85)	Indoor-Outdoor	Y48D28T06CUSS4X ②
9	—	2 at -5%	EPT	115	FR1034X	70A	226 (103)	Indoor-Outdoor	Y48G28T09CUSS4X ②
9	—	4 at -2.5%	EPT	115	FR1034X	503A	226 (103)	Indoor-Outdoor	Y48J28T09CUSS4X ②
9	2 at +2.5%	2 at -2.5%	EPT	115	FR1034X	72B	231 (105)	Indoor-Outdoor	Y48D28T09CUSS4X ②
15	2 at +2.5%	2 at -2.5%	EPT	115	FR954X	72B	276 (125)	Indoor-Outdoor	Y48D28T15CUSS4X ②
15	—	2 at -5%	EPT	115	FR954X	70A	283 (128)	Indoor-Outdoor	Y48G28T15CUSS4X ②
15	—	4 at -2.5%	EPT	115	FR954X	503A	299 (136)	Indoor-Outdoor	Y48J28T15CUSS4X ②
30	2 at +2.5%	4 at -2.5%	EPT	115	FR2434X	84A	602 (273)	Indoor-Outdoor	Y48M28T30CUSS4X
45	2 at +2.5%	4 at -2.5%	EPT	115	FR2444X	84A	829 (376)	Indoor-Outdoor	Y48M28T45CUSS4X
75	2 at +2.5%	4 at -2.5%	EPT	115	FR2454X	84A	1452 (659)	Indoor-Outdoor	Y48M28T75CUSS4X ③

Notes

① Grade 304 stainless steel standard. Grade 316 stainless steel available as an option. Replace suffix "SS" with suffix "S6."

② T-T connected (Scott T) secondary winding configuration.

③ Floor-mount only.

Contact your local Eaton sales office for voltage combinations not shown in the above table. Other voltages and custom features are available upon request.

Accessories

Please refer to Section 2.7 **Page V2-T2-191**.

Technical Data and Specifications

Frequency

Eaton standard dry-type distribution transformers are designed for 60 Hz operation. Transformers required for other frequencies are available and must be specifically designed.

Overload Capability

Short-term overload is designed into transformers as required by ANSI. Dry-type distribution transformers will deliver 200% nameplate load for one-half hour, 150% load for one hour and 125% load for four hours without being damaged, provided that a constant 50% load precedes and follows the overload. See ANSI C57.96-01.250 for additional limitations.

Continuous overload capacity is not deliberately designed into a transformer because the design objective is to be within the allowed winding temperature rise with nameplate loading.

Insulation System and Temperature Rise

Industry standards classify insulation systems and rise as shown below:

Insulation System Classification

Ambient	+ Winding Rise	+ Hot Spot	= Temp. Class
40°C	55°C	10°C	105°C
40°C	80°C	30°C	150°C
25°C	135°C	20°C	180°C
40°C	115°C	30°C	185°C
40°C	150°C	30°C	220°C

The design life of transformers having different insulation systems is the same—the lower-temperature systems are designed for the same life as the higher-temperature systems.

Enclosures

Eaton encapsulated transformers, Types EP and EPT, use a NEMA 3R rated enclosure as standard. NEMA 4X enclosures (grade 304 or 316 stainless steel) are available as an option.

Winding Terminations

Primary and secondary windings are terminated in the wiring compartment. Encapsulated units have copper leads or stabs brought out for connections. Ventilated transformers have leads brought out to aluminum pads that are pre-drilled to accept Cu/Al lugs.

Lugs are not supplied with these transformers. Eaton recommends that external cables be rated 90°C (sized at 75°C ampacity) for encapsulated designs and 75°C for ventilated designs.

Series-Multiple Windings

Series-multiple windings consist of two similar coils in each winding that can be connected in series or parallel (multiple). Transformers with series-multiple windings are designated with an "x" or "/" between the voltage ratings, such as voltages of "120/240" or "240 x 480." If the series-multiple winding is designated by an "x," the winding can be connected only for a series or parallel. With the "/" designation, a mid-point also becomes available in addition to the series or parallel connection. As an example, a 120 x 240 winding can be connected for either 120 (parallel) or 240 (series), but a 120/240 winding can be connected for 120 (parallel), 240 (series) or 240 with a 120 mid-point.

Sound Levels

All Eaton 600 volt class general-purpose dry-type distribution transformers are designed to meet NEMA ST-20 sound levels listed here. These are the sound levels measured in a soundproof environment. Actual sound levels measured at an installation will likely be higher due to

electrical connections and environmental conditions. Lower sound levels are available and should be specified when the transformer is going to be installed in an area where sound may be a concern.

For additional information, please refer to Section 2.7 **Page V2-T2-194**.

Average Sound Levels ^①

NEMA ST-20 Average Sound Level in dB

kVA	Up to 1.2 kV		Above 1.2 kV
	Ventilated	Encapsulated	Ventilated
0–9	40	45	45
10–50	45	50	50
51–150	50	55	55
151–300	55	57	58
301–500	60	59	60
501–700	62	61	62
701–1000	64	63	64
1001–1500	65	64	65

Notes

^① Currently being reviewed and revised by NEMA.

For other ratings or styles not shown, or for special enclosure types (including stainless steel), refer to Eaton.