



SECTION 11

HPS MILLENNIUM™ GENERAL PURPOSE MEDIUM VOLTAGE DISTRIBUTION TRANSFORMERS

1.2 KV to 5KV Class Dry Type Single Phase and Three Phase

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MEDIUM VOLTAGE DISTRIBUTION TRANSFORMER ENERGY EFFICIENCY GUIDELINES

In the past several years, there has been an accelerated rate of change to introduce energy efficiency standards for transformers in North America. In addition to the benefits to the environment, energy efficient transformers realize substantial savings in operating costs, thereby having a direct impact on the initial investment evaluated over a period of time.

United States - Energy Efficiency Regulations

In the U.S. all medium voltage dry-type distribution transformers (as defined below) manufactured after January 1st, 2010, must meet the minimum energy efficiency standards outlined in DOE 10 CFR Part 431. The range of product covered by these standards are:

Primary (high) Voltage		601V to 34.5 kV
Secondary (low) Voltage		600V and below
Dry-Type Rating	Single Phase	15-833 kVA
	Three Phase	15-2500 kVA
Frequency		60 Hz only

For transformers exempted from the DOE efficiency regulations please refer to the following DOE link:
http://www.access.gpo.gov/nara/cfr/waisidx_09/10cfr431_09.html

US Department of Energy DOE 10 CFR Part 431 Efficiency Levels Dry-Type Distribution Transformers - <u>Medium Voltage</u>							
Single Phase				Three Phase			
kVA	20 - 45 kV BIL Efficiency (%)	46 - 95 kV BIL Efficiency (%)	≥ 96 kV BIL Efficiency (%)	kVA	20 - 45 kV BIL Efficiency (%)	46 - 95 kV BIL Efficiency (%)	≥ 96 kV BIL Efficiency (%)
15	98.10	97.86	-	15	97.50	97.18	-
25	98.33	98.12	-	30	97.90	97.63	-
37.5	98.49	98.30	-	45	98.10	97.86	-
50	98.60	98.42	-	75	98.33	98.12	-
75	98.73	98.57	98.53	112.5	98.49	98.30	-
100	98.82	98.67	98.63	150	98.60	98.42	-
167	98.96	98.83	98.80	225	98.73	98.57	98.53
250	99.07	98.95	98.91	300	98.82	98.67	98.63
333	99.14	99.03	98.99	500	98.96	98.83	98.80
500	99.22	99.12	99.09	750	99.07	98.95	98.91
667	99.27	99.18	99.15	1000	99.14	99.03	98.99
833	99.31	99.23	99.20	1500	99.22	99.12	99.09
				2000	99.27	99.18	99.15
				2500	99.31	99.23	99.20

All efficiency values are at 50% of nameplate-rated load.

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MEDIUM VOLTAGE DISTRIBUTION TRANSFORMER ENERGY EFFICIENCY GUIDELINES

Canada - Energy Efficiency Regulations

In Canada, all medium voltage dry-type distribution transformers (as defined below) manufactured after January 1st, 2005, must meet the minimum energy efficiency guidelines as per CSA C802.2. NRCAN has recently evaluated the U.S. DOE 10 CFR Part 431 efficiency levels and determined they are more cost effective and thus, suitable for use in Canada. As a result, in 2010 the Canadian Energy Efficiency Act - Energy Efficiency Regulations (SOR/94-651) will be updated and the regulation will harmonize the minimum efficiency levels with those established in the U.S. DOE 10 CFR Part 431. At the time of printing of this catalog, these harmonized efficiency levels were proposed only; but HPS believes these efficiency standards will be added to the Canadian Efficiency Regulations in the near future.

The range of product covered by these standards are:

Primary Voltage BIL Rating		> 1.2 kV class (\geq 20 kV BIL)
Secondary (low) Voltage Line Current		Less than 4000 Amps
Dry-Type Rating	Single Phase	15-833 kVA
	Three Phase	15-7500 kVA
Frequency		60 Hz only

For transformers exempted from the Canadian Efficiency Regulations please refer to the following NRCAN link:
<http://laws.justice.gc.ca/eng/sor-94-651/page-1.html>

Canadian Energy Efficiency Act - Energy Efficiency Regulations Efficiency Levels*							
Dry-Type Distribution Transformers - Medium Voltage							
Single Phase				Three Phase			
kVA	20 - 45 kV BIL Efficiency (%)	46 - 95 kV BIL Efficiency (%)	\geq 96 kV BIL Efficiency (%)	kVA	20 - 45 kV BIL Efficiency (%)	46 - 95 kV BIL Efficiency (%)	\geq 96 kV BIL Efficiency (%)
15	98.10	97.86	97.80	15	97.50	97.18	97.11
25	98.33	98.12	98.07	30	97.90	97.63	97.57
37.5	98.49	98.30	98.25	45	98.10	97.86	97.80
50	98.60	98.42	98.37	75	98.33	98.12	98.07
75	98.73	98.57	98.53	112.5	98.49	98.30	98.25
100	98.82	98.67	98.63	150	98.60	98.42	98.37
167	98.96	98.83	98.80	225	98.73	98.57	98.53
250	99.07	98.95	98.91	300	98.82	98.67	98.63
333	99.14	99.03	98.99	500	98.96	98.83	98.80
500	99.22	99.12	99.09	750	99.07	98.95	98.91
667	99.27	99.18	99.15	1000	99.14	99.03	98.99
833	99.31	99.23	99.20	1500	99.22	99.12	99.09
				2000	99.27	99.18	99.15
				2500	99.31	99.23	99.20
				3000	99.34	99.26	99.24
				3750	99.38	99.30	99.28
				5000	99.42	99.35	99.33
				7500	99.48	99.41	99.39

All efficiency values are at 50% of nameplate-rated load.



1.2KV to 5KV CLASS DISTRIBUTION TRANSFORMERS

HPS Millennium™ energy efficient medium voltage distribution transformers are designed for stepping down incoming higher voltage power to utilize voltages for commercial, institutional or industrial applications. The standard NEMA 3R ventilated construction is suitable for indoor or outdoor applications.

ALUMINUM & COPPER WOUND STANDARD SPECIFICATIONS



SINGLE PHASE



THREE PHASE

	15 to 333 kVA	15 to 1500 kVA
Efficiency (where applicable)	Meets U.S. DOE CFR Part 431 and the Canadian Efficiency Regulations efficiency levels at 50% of rated load. Efficiencies are calculated under a linear load profile.	
UL Listed	File: E147879	File: E147879
CSA Certified	File: LR3902	File: LR3902
Frequency	60 Hz	60 Hz
Insulation System	220°C (150°C rise) 200°C (130°C rise) on some copper units (Optional 115°C and 80°C rise available)	220°C (150°C rise) 200°C (130°C rise) on some copper units (Optional 115°C and 80°C rise available)
Enclosure Type	Heavy Duty Ventilated NEMA Type 3R (Optional NEMA 4, 4X and 12 available)	Heavy Duty Ventilated NEMA Type 3R (Optional NEMA 4, 4X and 12 available)
Enclosure Finish	ANSI 61 Grey, UL50	ANSI 61 Grey, UL50
Standard Primary Taps	Refer to wiring diagrams for details.	Refer to wiring diagrams for details.
Termination	Front accessible separate high and low voltage terminals; connectors suitable for aluminum and copper are provided for easy cable installation.	Front accessible separate high and low voltage terminals; connectors suitable for aluminum and copper are provided for easy cable installation.
Conduit Knock-Outs	Standard on most units up to 100 kVA.	Standard on units up to 150 kVA
Impedance	Typically 2 to 5%	Typically 3 to 6%
Mounting	Floor or wall/ceiling mounting available. Refer to selection tables for details.	Floor or wall/ceiling mounting available. Refer to selection tables for details.
Seismic	Seismically certified in accordance with 2009 IBC for $S_{Ds} \leq 2.00g$, $z/h = 1.0$ and $I_p = 1.5$	Seismically certified in accordance with 2009 IBC for $S_{Ds} \leq 2.00g$, $z/h = 1.0$ and $I_p = 1.5$

Other voltages not listed in this section are available upon request for both aluminum and copper wound units. Please contact customer service for details, price and availability.

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ALUMINUM WOUND, SINGLE PHASE, NEMA 3R STYLE ENCLOSURE



2400 Primary Volts

120/240 Secondary Volts

60 Hz

kVA	Catalog Number	Case Style (Pages 260 - 267)	Approx. Dimensions (Inches)			Approx. Weight (Lbs.)	Mtg Type W - Wall F - Floor	Wiring Diagram (Pages 276 - 288)
			Width	Depth	Height			
15	MV1S015RE	NH6	23.90	25.00	28.75	290	F or W *	SCD 6
25	MV1S025RE	NH6	23.90	25.00	28.75	350	F or W *	SCD 6
37.5	MV1S037RE	NH6	23.90	25.00	28.75	420	F or W *	SCD 6
50	MV1S050RE	NH3	26.00	25.00	38.00	570	F or W *	SCD 6
75	MV1S075RE	NH3	26.00	25.00	38.00	660	F or W *	SCD 6
100	MV1S100RE	NH4	32.00	29.50	41.00	810	F	SCD 6
150	MV1S150RE	NJ4	32.00	32.50	50.00	1280	F	SCD 6
167	MV1S167RE	NJ4	32.00	32.50	50.00	1320	F	SCD 6
250	MV1S250RE	NJ4	32.00	32.50	50.00	1560	F	SCD 6
333	MV1S333RE	NJ2	48.50	38.40	59.00	1980	F	SCD 6

For shielded units, please add the suffix "S" to the above part numbers.

*WALL MOUNTING KIT AND/OR DRIP PLATE KIT REQUIRED.
REFER TO PAGES 271 TO 273 FOR DETAILS.

4160 Primary Volts

120/240 Secondary Volts

60 Hz

kVA	Catalog Number	Case Style (Pages 260 - 267)	Approx. Dimensions (Inches)			Approx. Weight (Lbs.)	Mtg Type W - Wall F - Floor	Wiring Diagram (Pages 276 - 288)
			Width	Depth	Height			
15	MV1S015SE	NH6	23.90	25.00	28.75	290	F or W *	SCD 6
25	MV1S025SE	NH6	23.90	25.00	28.75	350	F or W *	SCD 6
37.5	MV1S037SE	NH6	23.90	25.00	28.75	420	F or W *	SCD 6
50	MV1S050SE	NH3	26.00	25.00	38.00	570	F or W *	SCD 6
75	MV1S075SE	NH3	26.00	25.00	38.00	660	F or W *	SCD 6
100	MV1S100SE	NH4	32.00	29.50	41.00	810	F	SCD 6
150	MV1S150SE	NJ4	32.00	32.50	50.00	1280	F	SCD 6
167	MV1S167SE	NJ4	32.00	32.50	50.00	1320	F	SCD 6
250	MV1S250SE	NJ4	32.00	32.50	50.00	1560	F	SCD 6
333	MV1S333SE	NJ2	48.50	38.40	59.00	1980	F	SCD 6

For shielded units, please add the suffix "S" to the above part numbers.

*WALL MOUNTING KIT AND/OR DRIP PLATE KIT REQUIRED.
REFER TO PAGES 271 TO 273 FOR DETAILS.



COPPER WOUND, SINGLE PHASE, NEMA 3R STYLE ENCLOSURE



2400 Primary Volts

120/240 Secondary Volts

60 Hz

kVA	Catalog Number	Case Style (Pages 260 - 267)	Approx. Dimensions (Inches)			Approx. Weight (Lbs)	Mtg Type W - Wall F - Floor	Wiring Diagram (Pages 276 - 288)
			Width	Depth	Height			
15	MV1S015RECN	NH6	23.90	25.00	28.75	320	F or W *	SCD 6
25	MV1S025RECN	NH6	23.90	25.00	28.75	390	F or W *	SCD 6
37.5	MV1S037RECN	NH6	23.90	25.00	28.75	480	F or W *	SCD 6
50	MV1S050RECN	NH3	26.00	25.00	38.00	660	F or W *	SCD 6
75	MV1S075REC	NH3	26.00	25.00	38.00	770	F	SCD 6
100	MV1S100REC	NH4	32.00	29.50	41.00	970	F	SCD 6
150	MV1S150REC	NJ4	32.00	32.50	50.00	1300	F	SCD 6
167	MV1S167REC	NJ4	32.00	32.50	50.00	1440	F	SCD 6
250	MV1S250REC	NJ4	32.00	32.50	50.00	1800	F	SCD 6
333	MV1S333REC	NJ2	48.50	38.40	59.00	2280	F	SCD 6

For shielded units, please replace the letter "C" with a "K" in the above part numbers.

*WALL MOUNTING KIT AND/OR DRIP PLATE KIT REQUIRED.
REFER TO PAGES 271 TO 273 FOR DETAILS.

4160 Primary Volts

120/240 Secondary Volts

60 Hz

kVA	Catalog Number	Case Style (Pages 260 - 267)	Approx. Dimensions (Inches)			Approx. Weight (Lbs)	Mtg Type W - Wall F - Floor	Wiring Diagram (Pages 276 - 288)
			Width	Depth	Height			
15	MV1S015SECN	NH6	23.90	25.00	28.75	320	F or W *	SCD 6
25	MV1S025SECN	NH6	23.90	25.00	28.75	390	F or W *	SCD 6
37.5	MV1S037SECN	NH6	23.90	25.00	28.75	480	F or W *	SCD 6
50	MV1S050SECN	NH3	26.00	25.00	38.00	660	F or W *	SCD 6
75	MV1S075SECN	NH3	26.00	25.00	38.00	770	F	SCD 6
100	MV1S100SEC	NH4	32.00	29.50	41.00	970	F	SCD 6
150	MV1S150SEC	NJ4	32.00	32.50	50.00	1300	F	SCD 6
167	MV1S167SEC	NJ4	32.00	32.50	50.00	1440	F	SCD 6
250	MV1S250SEC	NJ4	32.00	32.50	50.00	1800	F	SCD 6
333	MV1S333SEC	NJ2	48.50	38.40	59.00	2280	F	SCD 6

For shielded units, please replace the letter "C" with a "K" in the above part numbers.

*WALL MOUNTING KIT AND/OR DRIP PLATE KIT REQUIRED.
REFER TO PAGES 271 TO 273 FOR DETAILS.

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SECTION 11

ENERGY EFFICIENT MEDIUM VOLTAGE DISTRIBUTION

ALUMINUM WOUND, THREE PHASE, NEMA 3R STYLE ENCLOSURE



2400 Delta Primary Volts

208Y/120 Secondary Volts

60 Hz

kVA	Catalog Number	Case Style (Pages 260 - 267)	Approx. Dimensions (Inches)			Approx. Weight (Lbs)	Mtg Type W - Wall F - Floor	Wiring Diagram (Pages 276 - 288)
			Width	Depth	Height			
15	MV3S015RB	NH6	23.90	25.00	28.75	350	F or W *	SCD 8
30	MV3S030RB	NH6	23.90	25.00	28.75	425	F or W *	SCD 10
45	MV3S045RB	NH3	26.00	25.00	38.00	600	F or W *	SCD 10
75	MV3S075RB	NH4	32.00	29.50	41.00	800	F	SCD 10
112.5	MV3S112RB	NH4	32.00	29.50	41.00	1200	F	SCD 10
150	MV3S150RB	NJ1	39.50	34.00	51.50	1400	F	SCD 10
225	MV3S225RB	NJ1	39.50	34.00	51.50	1600	F	SCD 10
300	MV3S300RB	NJ1	39.50	34.00	51.50	1800	F	SCD 10
500	MV3S500RB	NJ2	48.50	38.40	59.00	2600	F	SCD 10
750	MV3S750RB	NJ6	64.00	44.40	71.00	4200	F	SCD 10
1000	MV3S1000RB	NJ6	64.00	44.40	71.00	4500	F	SCD 10
1250	MV3S1250RB	NJ6	64.00	44.40	71.00	5300	F	SCD 10
1500	MV3S1500RB	NJ7	64.00	51.40	75.00	6300	F	SCD 10

For shielded units, please add the suffix "S" to the above part numbers.

*WALL MOUNTING KIT AND/OR DRIP PLATE KIT REQUIRED.
REFER TO PAGES 271 TO 273 FOR DETAILS.

2400 Delta Primary Volts

480Y/277 Secondary Volts

60 Hz

kVA	Catalog Number	Case Style (Pages 260 - 267)	Approx. Dimensions (Inches)			Approx. Weight (Lbs)	Mtg Type W - Wall F - Floor	Wiring Diagram (Pages 276 - 288)
			Width	Depth	Height			
15	MV3S015RK	NH6	23.90	25.00	28.75	350	F or W *	SCD 8
30	MV3S030RK	NH6	23.90	25.00	28.75	425	F or W *	SCD 10
45	MV3S045RK	NH3	26.00	25.00	38.00	600	F or W *	SCD 10
75	MV3S075RK	NH4	32.00	29.50	41.00	800	F	SCD 10
112.5	MV3S112RK	NH4	32.00	29.50	41.00	1200	F	SCD 10
150	MV3S150RK	NJ1	39.50	34.00	51.50	1400	F	SCD 10
225	MV3S225RK	NJ1	39.50	34.00	51.50	1600	F	SCD 10
300	MV3S300RK	NJ1	39.50	34.00	51.50	1800	F	SCD 10
500	MV3S500RK	NJ2	48.50	38.40	59.00	2600	F	SCD 10
750	MV3S750RK	NJ6	64.00	44.40	71.00	4200	F	SCD 10
1000	MV3S1000RK	NJ6	64.00	44.40	71.00	4500	F	SCD 10
1250	MV3S1250RK	NJ6	64.00	44.40	71.00	5300	F	SCD 10
1500	MV3S1500RK	NJ7	64.00	51.40	75.00	6300	F	SCD 10

For shielded units, please add the suffix "S" to the above part numbers.

*WALL MOUNTING KIT AND/OR DRIP PLATE KIT REQUIRED.
REFER TO PAGES 271 TO 273 FOR DETAILS.

2400 Delta Primary Volts

600Y/347 Secondary Volts

60 Hz

kVA	Catalog Number	Case Style (Pages 260 - 267)	Approx. Dimensions (Inches)			Approx. Weight (Lbs)	Mtg Type W - Wall F - Floor	Wiring Diagram (Pages 276 - 288)
			Width	Depth	Height			
15	MV3S015RP	NH6	23.90	25.00	28.75	350	F or W *	SCD 8
30	MV3S030RP	NH6	23.90	25.00	28.75	425	F or W *	SCD 10
45	MV3S045RP	NH3	26.00	25.00	38.00	600	F or W *	SCD 10
75	MV3S075RP	NH4	32.00	29.50	41.00	800	F	SCD 10
112.5	MV3S112RP	NH4	32.00	29.50	41.00	1200	F	SCD 10
150	MV3S150RP	NJ1	39.50	34.00	51.50	1400	F	SCD 10
225	MV3S225RP	NJ1	39.50	34.00	51.50	1600	F	SCD 10
300	MV3S300RP	NJ1	39.50	34.00	51.50	1800	F	SCD 10
500	MV3S500RP	NJ2	48.50	38.40	59.00	2600	F	SCD 10
750	MV3S750RP	NJ6	64.00	44.40	71.00	4200	F	SCD 10
1000	MV3S1000RP	NJ6	64.00	44.40	71.00	4600	F	SCD 10
1250	MV3S1250RP	NJ6	64.00	44.40	71.00	5200	F	SCD 10
1500	MV3S1500RP	NJ7	64.00	51.40	75.00	6300	F	SCD 10

For shielded units, please add the suffix "S" to the above part numbers.

*WALL MOUNTING KIT AND/OR DRIP PLATE KIT REQUIRED.
REFER TO PAGES 271 TO 273 FOR DETAILS.

FOR TERMINATION DETAILS SEE PAGE 275

FOR ACCESSORIES SEE PAGES 271 TO 274



ALUMINUM WOUND, THREE PHASE, NEMA 3R STYLE ENCLOSURE



4160 Delta Primary Volts

208Y/120 Secondary Volts

60 Hz

kVA	Catalog Number	Case Style (Pages 260 - 267)	Approx. Dimensions (Inches)			Approx. Weight (Lbs)	Mtg Type W - Wall F - Floor	Wiring Diagram (Pages 276 - 288)
			Width	Depth	Height			
15	MV3S015SB	NH6	23.90	25.00	28.75	350	F or W *	SCD 8
30	MV3S030SB	NH6	23.90	25.00	28.75	425	F or W *	SCD 10
45	MV3S045SB	NH3	26.00	25.00	38.00	600	F or W *	SCD 10
75	MV3S075SB	NH4	32.00	29.50	41.00	800	F	SCD 10
112.5	MV3S112SB	NH4	32.00	29.50	41.00	1200	F	SCD 10
150	MV3S150SB	NJ1	39.50	34.00	51.50	1400	F	SCD 10
225	MV3S225SB	NJ1	39.50	34.00	51.50	1600	F	SCD 10
300	MV3S300SB	NJ1	39.50	34.00	51.50	1800	F	SCD 10
500	MV3S500SB	NJ2	48.50	38.40	59.00	2600	F	SCD 10
750	MV3S750SB	NJ6	64.00	44.40	71.00	4200	F	SCD 10
1000	MV3S1000SB	NJ6	64.00	44.40	71.00	4600	F	SCD 10
1250	MV3S1250SB	NJ6	64.00	44.40	71.00	5300	F	SCD 10
1500	MV3S1500SB	NJ7	64.00	51.40	75.00	6300	F	SCD 10

For shielded units, please add the suffix "S" to the above part numbers.

*WALL MOUNTING KIT AND/OR DRIP PLATE KIT REQUIRED.
REFER TO PAGES 271 TO 273 FOR DETAILS.

4160 Delta Primary Volts

480Y/277 Secondary Volts

60 Hz

kVA	Catalog Number	Case Style (Pages 260 - 267)	Approx. Dimensions (Inches)			Approx. Weight (Lbs)	Mtg Type W - Wall F - Floor	Wiring Diagram (Pages 276 - 288)
			Width	Depth	Height			
15	MV3S015SK	NH6	23.90	25.00	28.75	350	F or W *	SCD 8
30	MV3S030SK	NH6	23.90	25.00	28.75	425	F or W *	SCD 10
45	MV3S045SK	NH3	26.00	25.00	38.00	600	F or W *	SCD 10
75	MV3S075SK	NH4	32.00	29.50	41.00	800	F	SCD 10
112.5	MV3S112SK	NH4	32.00	29.50	41.00	1200	F	SCD 10
150	MV3S150SK	NJ1	39.50	34.00	51.50	1400	F	SCD 10
225	MV3S225SK	NJ1	39.50	34.00	51.50	1600	F	SCD 10
300	MV3S300SK	NJ1	39.50	34.00	51.50	1800	F	SCD 10
500	MV3S500SK	NJ2	48.50	38.40	59.00	2600	F	SCD 10
750	MV3S750SK	NJ6	64.00	44.40	71.00	4200	F	SCD 10
1000	MV3S1000SK	NJ6	64.00	44.40	71.00	4500	F	SCD 10
1250	MV3S1250SK	NJ6	64.00	44.40	71.00	5300	F	SCD 10
1500	MV3S1500SK	NJ7	64.00	51.40	75.00	6300	F	SCD 10

For shielded units, please add the suffix "S" to the above part numbers.

*WALL MOUNTING KIT AND/OR DRIP PLATE KIT REQUIRED.
REFER TO PAGES 271 TO 273 FOR DETAILS.

4160 Delta Primary Volts

600Y/347 Secondary Volts

60 Hz

kVA	Catalog Number	Case Style (Pages 260 - 267)	Approx. Dimensions (Inches)			Approx. Weight (Lbs)	Mtg Type W - Wall F - Floor	Wiring Diagram (Pages 276 - 288)
			Width	Depth	Height			
15	MV3S015SP	NH6	23.90	25.00	28.75	350	F or W *	SCD 8
30	MV3S030SP	NH6	23.90	25.00	28.75	425	F or W *	SCD 10
45	MV3S045SP	NH3	26.00	25.00	38.00	600	F or W *	SCD 10
75	MV3S075SP	NH4	32.00	29.50	41.00	800	F	SCD 10
112.5	MV3S112SP	NH4	32.00	29.50	41.00	1200	F	SCD 10
150	MV3S150SP	NJ1	39.50	34.00	51.50	1400	F	SCD 10
225	MV3S225SP	NJ1	39.50	34.00	51.50	1600	F	SCD 10
300	MV3S300SP	NJ1	39.50	34.00	51.50	1800	F	SCD 10
500	MV3S500SP	NJ2	48.50	38.40	59.00	2600	F	SCD 10
750	MV3S750SP	NJ6	64.00	44.40	71.00	4200	F	SCD 10
1000	MV3S1000SP	NJ6	64.00	44.40	71.00	4600	F	SCD 10
1250	MV3S1250SP	NJ6	64.00	44.40	71.00	5200	F	SCD 10
1500	MV3S1500SP	NJ7	64.00	51.40	75.00	6300	F	SCD 10

For shielded units, please add the suffix "S" to the above part numbers.

*WALL MOUNTING KIT AND/OR DRIP PLATE KIT REQUIRED.
REFER TO PAGES 271 TO 273 FOR DETAILS.

FOR TERMINATION DETAILS SEE PAGE 275

FOR ACCESSORIES SEE PAGES 271 TO 274



SECTION 11

SECTION 11

ENERGY EFFICIENT MEDIUM VOLTAGE DISTRIBUTION

COPPER WOUND, THREE PHASE, NEMA 3R STYLE ENCLOSURE



2400 Delta Primary Volts

208Y/120 Secondary Volts

60 Hz

kVA	Catalog Number	Case Style (Pages 260 - 267)	Approx. Dimensions (Inches)			Approx. Weight (Lbs)	Mtg Type W - Wall F - Floor	Wiring Diagram (Pages 276 - 288)
			Width	Depth	Height			
15	MV3S015RBCN	NH6	23.90	25.00	28.75	400	F or W *	SCD 8
30	MV3S030RBCN	NH6	23.90	25.00	28.75	500	F or W *	SCD 10
45	MV3S045RBCN	NH3	26.00	25.00	38.00	600	F or W *	SCD 10
75	MV3S075RBCN	NH4	32.00	29.50	41.00	900	F	SCD 10
112.5	MV3S112RBCN	NH4	32.00	29.50	41.00	1100	F	SCD 10
150	MV3S150RBCN	NJ1	39.50	34.00	51.50	1500	F	SCD 10
225	MV3S225RBC	NJ1	39.50	34.00	51.50	1700	F	SCD 10
300	MV3S300RBC	NJ1	39.50	34.00	51.50	1900	F	SCD 10
500	MV3S500RBC	NJ2	48.50	38.40	59.00	3000	F	SCD 10
750	MV3S750RBC	NJ6	64.00	44.40	71.00	4200	F	SCD 10
1000	MV3S1000RBC	NJ6	64.00	44.40	71.00	4800	F	SCD 10
1250	MV3S1250RBC	NJ6	64.00	44.40	71.00	6200	F	SCD 10
1500	MV3S1500RBC	NJ7	64.00	51.40	75.00	6600	F	SCD 10

For shielded units, please replace the letter "C" with a "K" in the above part numbers.

*WALL MOUNTING KIT AND/OR DRIP PLATE KIT REQUIRED.
REFER TO PAGES 271 TO 273 FOR DETAILS.

2400 Delta Primary Volts

480Y/277 Secondary Volts

60 Hz

kVA	Catalog Number	Case Style (Pages 260 - 267)	Approx. Dimensions (Inches)			Approx. Weight (Lbs)	Mtg Type W - Wall F - Floor	Wiring Diagram (Pages 276 - 288)
			Width	Depth	Height			
15	MV3S015RKCN	NH6	23.90	25.00	28.75	400	F or W *	SCD 8
30	MV3S030RKCN	NH6	23.90	25.00	28.75	500	F or W *	SCD 10
45	MV3S045RKCN	NH3	26.00	25.00	38.00	600	F or W *	SCD 10
75	MV3S075RKCN	NH4	32.00	29.50	41.00	900	F	SCD 10
112.5	MV3S112RKCN	NH4	32.00	29.50	41.00	1100	F	SCD 10
150	MV3S150RKCN	NJ1	39.50	34.00	51.50	1500	F	SCD 10
225	MV3S225RKC	NJ1	39.50	34.00	51.50	1600	F	SCD 10
300	MV3S300RKC	NJ1	39.50	34.00	51.50	1900	F	SCD 10
500	MV3S500RKC	NJ2	48.50	38.40	59.00	3000	F	SCD 10
750	MV3S750RKC	NJ6	64.00	44.40	71.00	4200	F	SCD 10
1000	MV3S1000RKC	NJ6	64.00	44.40	71.00	4800	F	SCD 10
1250	MV3S1250RKC	NJ6	64.00	44.40	71.00	6200	F	SCD 10
1500	MV3S1500RKC	NJ7	64.00	51.40	75.00	6600	F	SCD 10

For shielded units, please replace the letter "C" with a "K" in the above part numbers.

*WALL MOUNTING KIT AND/OR DRIP PLATE KIT REQUIRED.
REFER TO PAGES 271 TO 273 FOR DETAILS.

2400 Delta Primary Volts

600Y/347 Secondary Volts

60 Hz

kVA	Catalog Number	Case Style (Pages 260 - 267)	Approx. Dimensions (Inches)			Approx. Weight (Lbs)	Mtg Type W - Wall F - Floor	Wiring Diagram (Pages 276 - 288)
			Width	Depth	Height			
15	MV3S015RPCN	NH6	23.90	25.00	28.75	400	F or W *	SCD 8
30	MV3S030RPCN	NH6	23.90	25.00	28.75	500	F or W *	SCD 10
45	MV3S045RPCN	NH3	26.00	25.00	38.00	600	F or W *	SCD 10
75	MV3S075RPCN	NH4	32.00	29.50	41.00	900	F	SCD 10
112.5	MV3S112RPCN	NH4	32.00	29.50	41.00	1100	F	SCD 10
150	MV3S150RPCN	NJ1	39.50	34.00	51.50	1500	F	SCD 10
225	MV3S225RPC	NJ1	39.50	34.00	51.50	1600	F	SCD 10
300	MV3S300RPC	NJ1	39.50	34.00	51.50	1900	F	SCD 10
500	MV3S500RPC	NJ2	48.50	38.40	59.00	2900	F	SCD 10
750	MV3S750RPC	NJ6	64.00	44.40	71.00	4200	F	SCD 10
1000	MV3S1000RPC	NJ6	64.00	44.40	71.00	4800	F	SCD 10
1250	MV3S1250RPC	NJ6	64.00	44.40	71.00	6200	F	SCD 10
1500	MV3S1500RPC	NJ7	64.00	51.40	75.00	6600	F	SCD 10

For shielded units, please replace the letter "C" with a "K" in the above part numbers.

*WALL MOUNTING KIT AND/OR DRIP PLATE KIT REQUIRED.
REFER TO PAGES 271 TO 273 FOR DETAILS.

FOR TERMINATION DETAILS SEE PAGE 275

FOR ACCESSORIES SEE PAGES 271 TO 274



COPPER WOUND, THREE PHASE, NEMA 3R STYLE ENCLOSURE



4160 Delta Primary Volts

208Y/120 Secondary Volts

60 Hz

kVA	Catalog Number	Case Style (Pages 260 - 267)	Approx. Dimensions (Inches)			Approx. Weight (Lbs)	Mtg Type W - Wall F - Floor	Wiring Diagram (Pages 276 - 288)
			Width	Depth	Height			
15	MV3S015SBCN	NH6	23.90	25.00	28.75	400	F or W *	SCD 8
30	MV3S030SBCN	NH6	23.90	25.00	28.75	500	F or W *	SCD 10
45	MV3S045SBCN	NH3	26.00	25.00	38.00	600	F or W *	SCD 10
75	MV3S075SBCN	NH4	32.00	29.50	41.00	900	F	SCD 10
112.5	MV3S112SBCN	NH4	32.00	29.50	41.00	1100	F	SCD 10
150	MV3S150SBCN	NJ1	39.50	34.00	51.50	1500	F	SCD 10
225	MV3S225SBCN	NJ1	39.50	34.00	51.50	1700	F	SCD 10
300	MV3S300SBC	NJ1	39.50	34.00	51.50	1900	F	SCD 10
500	MV3S500SBC	NJ2	48.50	38.40	59.00	3000	F	SCD 10
750	MV3S750SBC	NJ6	64.00	44.40	71.00	4200	F	SCD 10
1000	MV3S1000SBC	NJ6	64.00	44.40	71.00	4800	F	SCD 10
1250	MV3S1250SBC	NJ6	64.00	44.40	71.00	6200	F	SCD 10
1500	MV3S1500SBC	NJ7	64.00	51.40	75.00	6600	F	SCD 10

For shielded units, please replace the letter "C" with a "K" in the above part numbers.

*WALL MOUNTING KIT AND/OR DRIP PLATE KIT REQUIRED. REFER TO PAGES 271 TO 273 FOR DETAILS.

4160 Delta Primary Volts

480Y/277 Secondary Volts

60 Hz

kVA	Catalog Number	Case Style (Pages 260 - 267)	Approx. Dimensions (Inches)			Approx. Weight (Lbs)	Mtg Type W - Wall F - Floor	Wiring Diagram (Pages 276 - 288)
			Width	Depth	Height			
15	MV3S015SKCN	NH6	23.90	25.00	28.75	400	F or W *	SCD 8
30	MV3S030SKCN	NH6	23.90	25.00	28.75	500	F or W *	SCD 10
45	MV3S045SKCN	NH3	26.00	25.00	38.00	600	F or W *	SCD 10
75	MV3S075SKCN	NH4	32.00	29.50	41.00	900	F	SCD 10
112.5	MV3S112SKCN	NH4	32.00	29.50	41.00	1100	F	SCD 10
150	MV3S150SKCN	NJ1	39.50	34.00	51.50	1500	F	SCD 10
225	MV3S225SKCN	NJ1	39.50	34.00	51.50	1600	F	SCD 10
300	MV3S300SKC	NJ1	39.50	34.00	51.50	1900	F	SCD 10
500	MV3S500SKC	NJ2	48.50	38.40	59.00	3000	F	SCD 10
750	MV3S750SKC	NJ6	64.00	44.40	71.00	4200	F	SCD 10
1000	MV3S1000SKC	NJ6	64.00	44.40	71.00	4800	F	SCD 10
1250	MV3S1250SKC	NJ6	64.00	44.40	71.00	6200	F	SCD 10
1500	MV3S1500SKC	NJ7	64.00	51.40	75.00	6600	F	SCD 10

For shielded units, please replace the letter "C" with a "K" in the above part numbers.

*WALL MOUNTING KIT AND/OR DRIP PLATE KIT REQUIRED. REFER TO PAGES 271 TO 273 FOR DETAILS.

4160 Delta Primary Volts

600Y/347 Secondary Volts

60 Hz

kVA	Catalog Number	Case Style (Pages 260 - 267)	Approx. Dimensions (Inches)			Approx. Weight (Lbs)	Mtg Type W - Wall F - Floor	Wiring Diagram (Pages 276 - 288)
			Width	Depth	Height			
15	MV3S015SPCN	NH6	23.90	25.00	28.75	400	F or W *	SCD 8
30	MV3S030SPCN	NH6	23.90	25.00	28.75	500	F or W *	SCD 10
45	MV3S045SPCN	NH3	26.00	25.00	38.00	600	F or W *	SCD 10
75	MV3S075SPCN	NH4	32.00	29.50	41.00	900	F	SCD 10
112.5	MV3S112SPCN	NH4	32.00	29.50	41.00	1100	F	SCD 10
150	MV3S150SPCN	NJ1	39.50	34.00	51.50	1500	F	SCD 10
225	MV3S225SPCN	NJ1	39.50	34.00	51.50	1600	F	SCD 10
300	MV3S300SPC	NJ1	39.50	34.00	51.50	1900	F	SCD 10
500	MV3S500SPC	NJ2	48.50	38.40	59.00	2900	F	SCD 10
750	MV3S750SPC	NJ6	64.00	44.40	71.00	4200	F	SCD 10
1000	MV3S1000SPC	NJ6	64.00	44.40	71.00	4800	F	SCD 10
1250	MV3S1250SPC	NJ6	64.00	44.40	71.00	6200	F	SCD 10
1500	MV3S1500SPC	NJ7	64.00	51.40	75.00	6600	F	SCD 10

For shielded units, please replace the letter "C" with a "K" in the above part numbers.

*WALL MOUNTING KIT AND/OR DRIP PLATE KIT REQUIRED. REFER TO PAGES 271 TO 273 FOR DETAILS.

FOR TERMINATION DETAILS SEE PAGE 275

FOR ACCESSORIES SEE PAGES 271 TO 274



SECTION 11