

# SMVector Drive

Flexible, simple, economical



# Lenze

# SMVector | Features and Benefits:

The SMVector continues our price leadership tradition in the highly competitive AC drive market. Its performance and flexibility make it an attractive solution for a broad range of applications including:

- ▶ Food processing machinery
- ▶ Packaging machinery
- ▶ Material handling/conveying systems
- ▶ HVAC systems

The SMVector makes good its promise of price leadership in delivering unparalleled performance and simplicity. The SMVector is the right choice when you need it all – performance, power, packaging and intuitive programming.



SMV NEMA 4X (IP65)



SMV NEMA 1 (IP31)

**Two Year Warranty**

## Superior Performance

- ▶ Modes of Operation:
  - V/Hz (Constant and Variable)
  - Enhanced V/Hz (Constant and Variable)
  - Vector Speed Control
  - Vector Torque Control
- ▶ Dynamic Torque Response
- ▶ Sophisticated Auto-tuning (Motor Calibration)
- ▶ Impressive Low Speed Operation
- ▶ Sequencer with 16 Programmable Segments

## Flexible Power Ranges

- ▶ International Voltages:
  - 120/240V, 1Ø (up to 1.5 Hp)
  - 200/240V, 1/3Ø (up to 3 Hp)
  - 200/240V, 3Ø (up to 20 Hp)
  - 400/480V, 3Ø (up to 60 Hp)
  - 480/600V, 3Ø (up to 60 Hp)

## Industrial Grade Packaging

- ▶ NEMA Type 1 (IP31) Enclosure
- ▶ NEMA 4X (IP65) Indoor Only
- ▶ NEMA 4X (IP65) Indoor/Outdoor

## Simplicity

- ▶ Intuitive User Interface
- ▶ Electronic Memory Module (EPM)
- ▶ Optional Disconnect Switch (NEMA 4X only)
- ▶ Optional Potentiometer Switch (NEMA 4X only)

# EPM | Just think of it as ... Ever Present Memory



When you need to program or replace a drive, whether it is 1 or 100 drives, the Electronic Programming Module (EPM) gets it done simply, quickly and most important, accurately. There is no hassle of reconfiguring each parameter or resetting the drive to factory or user default settings.

When drive reset is necessary, reset to factory default or customer settings in seconds with the EPM. When the EPM equipped drive is used on a line containing multiple drives with the identical setup, it takes just minutes to program the entire line. And EPMs can be replaced with or without power connected. When a drive must be replaced, the parameter configuration is not lost, simply plug in the pre-programmed EPM. You are good to go with Ever Present Memory.

# SMVector | Ratings & Dimensions

## 120/240V\* - 1Ø Input (3Ø Output)

Power		NEMA1		NEMA4X - Indoor [C]/Outdoor[E]		NEMA4X w/Disconnect - Indoor	
Hp	KW	Model	Size	Model	Size	Model	Size
0.33	0.25	ESV251N01SXB	G1	N/A			
0.5	0.37	ESV371N01SXB	G1	ESV371N01SX[C] or [E]	R1	ESV371N01SMC	AA1
1	0.75	ESV751N01SXB	G1	ESV751N01SX[C] or [E]	R1	ESV751N01SMC	AA1
1.5	1.1	ESV112N01SXB	G2	ESV112N01SX[C] or [E]	R2	ESV112N01SMC	AA2

\*120/240V models provide 0-230V output even with 120V input applied.

## 200/240V - 1 or 3Ø Input (3Ø Output)

Power		NEMA1		NEMA4X - Indoor [C]/Outdoor[E]*		NEMA4X w/Disconnect - Indoor**	
Hp	KW	Model	Size	Model	Size	Model	Size
0.33	0.25	ESV251N02SXB***	G1	N/A			
0.5	0.37	ESV371N02YXB	G1	ESV371N02YX[C] or [E]	R1	ESV371N02YMC	AA1
1	0.75	ESV751N02YXB	G1	ESV751N02YX[C] or [E]	R1	ESV751N02YMC	AA1
1.5	1.1	ESV112N02YXB	G2	ESV112N02YX[C] or [E]	R2	ESV112N02YMC	AA2
2	1.5	ESV152N02YXB	G2	ESV152N02YX[C] or [E]	R2	ESV152N02YMC	AA2
3	2.2	ESV222N02YXB	G2	ESV222N02YX[C] or [E]	S1	ESV222N02YMC	AD1

\*Filter versions are also available in 1-phase: Replace the "YX" in the Model Part Number with an "SF".  
 \*\*Filter versions are also available in 1-phase: Replace the "YM" in the Model Part Number with an "SL".  
 \*\*\*Model ESV251N02SXB is single-phase input only.

## 200/240V - 3Ø Input (3Ø Output)

Power		NEMA1		NEMA4X - Indoor [C or D]/Outdoor[E or F]		NEMA4X w/Disconnect - Indoor	
Hp	KW	Model	Size	Model	Size	Model	Size
1.5	1.1	ESV112N02TXB	G2	N/A			
2	1.5	ESV152N02TXB	G2	N/A			
3	2.2	ESV222N02TXB	G2	N/A			
5	4	ESV402N02TXB	G3	ESV402N02TX[C] or [E]	V1	ESV402N02TMC	AC1
7.5	5.5	ESV552N02TXB	H1	ESV552N02TX[D] or [F]	T1	ESV552N02TMD	AB1
10	7.5	ESV752N02TXB	H1	ESV752N02TX[D] or [F]	T1	ESV752N02TMD	AB1
15	11	ESV113N02TXB	J1	ESV113N02TX[D] or [F]	W1	ESV113N02TMD	AF1
20	15	ESV153N02TXB	J1	ESV153N02TX[D] or [F]	W1	ESV153N02TMD	AF1

## 400/480V - 3Ø Input (3Ø Output)

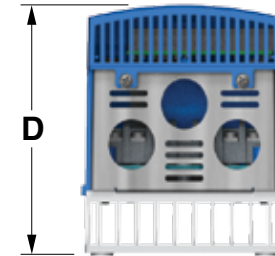
Power		NEMA1		NEMA4X - Indoor [C or D]/Outdoor[E or F]*		NEMA4X w/Disconnect - Indoor**	
Hp	KW	Model	Size	Model	Size	Model	Size
0.5	0.37	ESV371N04TXB	G1	ESV371N04TX[C] or [E]	R1	ESV371N04TMC	AA1
1	0.75	ESV751N04TXB	G1	ESV751N04TX[C] or [E]	R1	ESV751N04TMC	AA1
1.5	1.1	ESV112N04TXB	G2	ESV112N04TX[C] or [E]	R2	ESV112N04TMC	AA2
2	1.5	ESV152N04TXB	G2	ESV152N04TX[C] or [E]	R2	ESV152N04TMC	AA2
3	2.2	ESV222N04TXB	G2	ESV222N04TX[C] or [E]	R2	ESV222N04TMC	AA2
5	4	ESV402N04TXB	G3	ESV402N04TX[C] or [E]	V1	ESV402N04TMC	AC1
7.5	5.5	ESV552N04TXB	H1	ESV552N04TX[C] or [E]	V1	ESV552N04TMC	AC1
10	7.5	ESV752N04TXB	H1	ESV752N04TX[D] or [F]	T1	ESV752N04TMD	AB1
15	11	ESV113N04TXB	J1	ESV113N04TX[D] or [F]	W1	ESV113N04TMD	AE1
20	15	ESV153N04TXB	J1	ESV153N04TX[D] or [F]	W1	ESV153N04TMD	AE1
25	18.5	ESV183N04TXB	J1	ESV183N04TX[D] or [F]	W1	ESV183N04TMD	AF1
30	22	ESV223N04TXB	J1	ESV223N04TX[D] or [F]	X1	ESV223N04TMD	AF1
40	30	ESV303N04TXB	K1	N/A			
50	37.5	ESV373N04TXB	K2	N/A			
60	45	ESV453N04TXB	K3	N/A			

\*Filter versions are also available in 1-phase: Replace the "X" in the Model Part Number with an "F".  
 \*\*Filter versions are also available in 1-phase: Replace the "M" in the Model Part Number with an "L".

## 600V - 3Ø Input (3Ø Output)

Power		NEMA1		NEMA4X - Indoor [C or D]/Outdoor[E or F]		NEMA4X w/Disconnect - Indoor	
Hp	KW	Model	Size	Model	Size	Model	Size
1	0.75	ESV751N06TXB	G1	ESV751N06TX[C] or [E]	R1	ESV751N06TMC	AA1
2	1.5	ESV152N06TXB	G2	ESV152N06TX[C] or [E]	R2	ESV152N06TMC	AA2
3	2.2	ESV222N06TXB	G2	ESV222N06TX[C] or [E]	R2	ESV222N06TMC	AA2
5	4	ESV402N06TXB	G3	ESV402N06TX[C] or [E]	V1	ESV402N06TMC	AC1
7.5	5.5	ESV552N06TXB	H1	ESV552N06TX[C] or [E]	V1	ESV552N06TMC	AC1
10	7.5	ESV752N06TXB	H1	ESV752N06TX[D] or [F]	T1	ESV752N06TMD	AB1
15	11	ESV113N06TXB	J1	ESV113N06TX[D] or [F]	W1	ESV113N06TMD	AE1
20	15	ESV153N06TXB	J1	ESV153N06TX[D] or [F]	W1	ESV153N06TMD	AE1
25	18.5	ESV183N06TXB	J1	ESV183N06TX[D] or [F]	W1	ESV183N06TMD	AF1
30	22	ESV223N06TXB	J1	ESV223N06TX[D] or [F]	X1	ESV223N06TMD	AF1
40	30	ESV303N06TXB	K1	N/A			
50	37.5	ESV373N06TXB	K2	N/A			
60	45	ESV453N06TXB	K3	N/A			

SMV NEMA 1 (IP31)



Bottom Entry with NEMA 1 Steel Conduit Plate



Bottom Entry with IP31 Finger Guard

## Dimensions

	H		W		D	
	in.	mm	in.	mm	in.	mm
<b>G1</b>	7.50	190	3.90	99	4.40	111
<b>G2</b>	7.60	191	3.90	99	5.50	138
<b>G3</b>	7.60	191	3.90	99	5.80	147
<b>H1</b>	9.90	250	5.20	130	6.30	160
<b>J1</b>	12.50	318	7.00	176	8.10	205
<b>K1</b>	14.19	360	8.72	221	10.07	256
<b>K2</b>	17.19	436	8.72	221	10.07	256
<b>K3</b>	20.19	513	8.72	221	10.07	256
<b>R1</b>	8.00	203	6.30	160	4.50	114
<b>R2</b>	8.00	203	6.30	160	6.30	160
<b>S1</b>	8.00	203	7.10	181	6.80	172
<b>T1</b>	10.00	254	8.10	204	8.00	203
<b>V1</b>	10.00	254	9.00	228	8.00	203
<b>W1</b>	14.40	366	9.40	240	9.50	241
<b>X1</b>	18.50	470	9.40	240	9.50	241
<b>AA1</b>	11.00	279	6.30	160	5.40	136
<b>AA2</b>	11.00	279	6.30	160	7.20	182
<b>AB1</b>	13.00	330	8.10	204	8.90	225
<b>AC1</b>	13.00	330	9.00	228	9.00	226
<b>AD1</b>	11.00	279	7.10	181	7.70	194
<b>AE1</b>	14.40	366	9.40	240	10.20	259
<b>AF1</b>	18.50	470	9.40	240	10.20	259