



# VarPlus MAX Detuned Reactors

MAXimize Efficiency  
MAXimize Savings



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**Schneider**  
Electric

# VarPlus MAX Detuned Reactors

## > MAXimize your selection

- Wide range available in Aluminium windings  
(Copper windings option available on request)

## > MAXimize your OPEX optimization

- Up to 30% lower losses to reduce your OPEX

Watt loss	25Kvar 7%	50Kvar 7%
Other brands in Market	127W (at 32.8A)	170W (at 65.6A)
<b>VarPlus MAX</b>	<b>90W (at 32.8A)</b>	<b>120W (at 65.6A)</b>

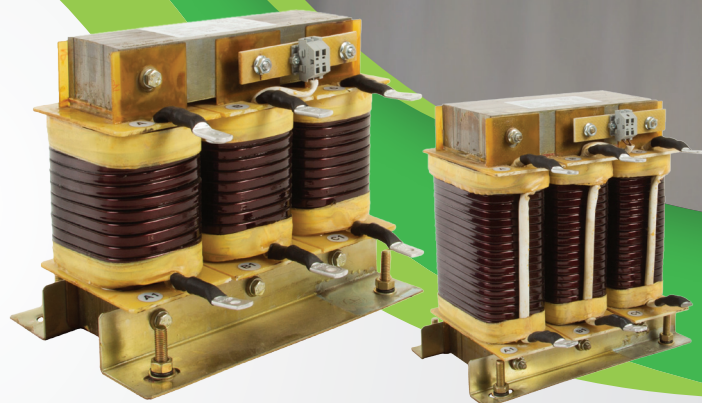
## > MAXimize your thermal efficiency

- Up to 20% lower working temperatures

## > MAXimize your operational efficiency

- Design current up to 1.3 x Rated Current
- Saturation current limit up to 2.0 x Rated Current
- Designed for Harsh environments (Maximum voltage harmonic limit up to 9%)

Tuning	Current harmonic Spectrum				
	I <sub>3</sub>	I <sub>5</sub>	I <sub>7</sub>	I <sub>11</sub>	I <sub>13</sub>
5.70%	3%	68%	19%	6%	4%
7%	4%	37%	13%	5%	3%
14%	5%	10%	5%	2%	1%



## VarPlus MAX Features

Safety Features	
Earthing continuity from top to bottom & between each side of reactor	Yes
Over temperature trip connector	Thermal switch with a normally closed contact of 250V/2A AC
Installation characteristics	
Connectors (Terminals)	Indoor / Upright
Ventilation	Forced Ventilation
Environmental conditions	
Ambient temperature	-25 / Class D, Max 55°C
Humidity	95%
Altitude	2000M Above sea level
Salt spray withstand	250 Hours
Storage Temperature	-40 to +60°C
General / Electrical characteristics	
Standards	IEC 60076-6
Winding Material	Aluminium (Copper on request)
Material Class	Class H
Network Voltage	440V
Frequency	50 Hz
Inductance tolerance between phases	$L_{max} / L_{min} < 1.07$ (measured values)
Relative Impedance (Tuning order)	5.7% (4.2), 7% (3.8) & 14% (2.7)
Inductance Tolerance	+/- 5% on Nominal values Continuous overload on Fundamental Current
Design Voltage Harmonic Spectrum (V3, V5, V7, V11, V13)	0.5%, 6%, 5%, 3.5%, 3% ; THD(V) = 9.1%
Thermal Current (Design current) to Fundamental Current ratio (Absolute Value)	1.11 (14%), 1.17 (7%) & 1.30 (5.7%)
Saturation Current / Fundamental Current	2.0 x Rated Current
Thermal withstand current $I_{cc}$	$25 \times I_1 - 1 \text{ sec}$
Peak withstand current	$2.2 \times I_{cc}$
Highest voltage for equipment $U_m$	1.1 kV as per IEC60076-3
AC dielectric test phase to phase and phase to earth	4 kV - 1 minute
Distance between terminals and earth	20 mm
Green Premium	
ROHS Complaint	Compliant
REACH Complaint	Compliant
Schneider Green Premium Certification	Compliant

# VarPlus MAX Detuned Reactor

Tuning Factor (P) = 7% Frequency (Fr) = 189Hz, 440V, Fn=50Hz

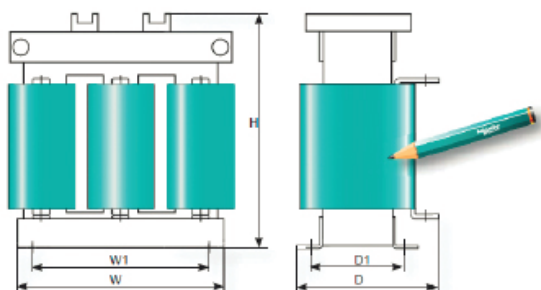
Qn (kVAr)	Rated Current In	Designed Reactor Rated Current Irms	Inductance (3*mH)	Reference Number	W (mm)	W1 (mm)	D (mm)	D1 (mm)	H (mm)	Net weight (kgs)
5	6.6	7.7	9.28	LVR07050A44LO	240	200	153	125	220	10.7
10	13.1	15.4	4.64	LVR07100A44LO	240	200	153	125	220	12.7
12.5	16.4	19.2	3.71	LVR07125A44LO	240	200	153	125	220	16.2
15	19.7	23.0	3.09	LVR07150A44LO	240	200	165	125	220	16.2
20	26.2	30.7	2.32	LVR07200A44LO	240	200	165	125	220	21.2
25	32.8	38.4	1.85	LVR07250A44LO	240	200	165	125	220	21.2
50	65.6	76.8	0.92	LVR07500A44LO	260	200	160	125	270	32.2
75	98.4	115.1	0.60	LVR07750A44LO	260	200	160	125	270	43.2
100	131.2	153.5	0.46	LVR07X00A44LO	350	200	210	125	250	44.2

Tuning Factor (P) = 5.67% Frequency (Fr) = 210Hz, 440V, Fn=50Hz

Qn (kVAr)	Rated Current In	Designed Reactor Rated Current Irms	Inductance (3*mH)	Reference Number	W (mm)	W1 (mm)	D (mm)	D1 (mm)	H (mm)	Net weight (kgs)
5	6.6	8.5	7.45	LVR05050A44LO	240	200	153	125	220	10.7
10	13.1	17.1	3.72	LVR05100A44LO	240	200	153	125	220	12.7
12.5	16.4	21.3	2.98	LVR05125A44LO	240	200	153	125	220	16.2
15	19.7	25.6	2.48	LVR05150A44LO	240	200	165	125	220	16.2
20	26.2	34.1	1.86	LVR05200A44LO	240	200	165	125	220	21.2
25	32.8	42.6	1.49	LVR05250A44LO	240	200	165	125	220	21.2
50	65.6	85.3	0.74	LVR05500A44LO	260	200	160	125	270	30.7
100	131.2	170.6	0.37	LVR05X00A44LO	350	200	210	125	250	44.2

Tuning Factor (P) = 14% Frequency (Fr) = 134Hz, 440V, Fn=50Hz

Qn (kVAr)	Rated Current In	Designed Reactor Rated Current Irms	Inductance (3*mH)	Reference Number	W (mm)	W1 (mm)	D (mm)	D1 (mm)	H (mm)	Net weight (kgs)
10	13.1	14.6	10.03	LVR14100A44LO	240	200	165	125	220	13
15	19.7	21.8	6.68	LVR14150A44LO	240	200	153	125	220	15.5
20	26.2	29.1	5.01	LVR14200A44LO	240	200	170	125	220	27
25	32.8	36.4	4.01	LVR14250A44LO	240	200	165	125	220	27.2
50	65.6	72.8	2.00	LVR14500A44LO	260	200	160	125	270	37.2
100	131.2	145.7	1.00	LVR14X00A44LO	350	200	210	125	250	61.2



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