# General Accessories for AC Drives

# **Drives Accessories – Line/Load Reactors** LR(2) Series Line Reactors

Input line reactors protect the AC drive from transient overvoltage conditions typically caused by utility capacitor switching. Input line reactors also reduce the harmonics associated with AC drives and are recommended for all installations. Output line (load) reactors protect the motor insulation against AC drive short circuits and IGBT reflective wave damage, and also allow the motor to run cooler by "smoothing" the motor current waveform. They are recommended for operating "non-inverter-duty" motors, and for any motors where the length of wiring between the AC drive and motor is less than 100 feet. For AC Drive-to-Motor wiring distances over 100 feet, use of the VTF series output filter is recommended.

#### Features:

- Universal mounting feet with multiple mounting slots; can replace most reactors using existing mounting holes
- Short-term overload rating: 200% of rated current for 3 minutes maximum
- Overload inductance:
- 95% @ 110% load; 80% @ 150% load
- Impedence: 3%
- 10-year warranty

#### Agency Approvals:

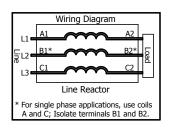
- CUL<sub>US</sub> listed (E197592)
- CE marked
- RoHS



<u>LR2-10P2-1PH</u>

LR-2100





Wiring

# LR(2) Series Line/Load Reactors – Compatibility with AutomationDirect AC Drives

Typical Line Reactors

- For Reactor compatibility with CFW100 AC Drives, please refer to WEG CFW100 AC Drives Accessories on page tCFW-15.
- For Reactor compatibility with CFW300 AC Drives, please refer to WEG CFW300 AC Drives Accessories on page tCFW-8.
- For Reactor compatibility with GS1 AC Drives, please refer to GS1 Series Specifications on page tGSX-2.
- For Reactor compatibility with GS2 AC Drives, please refer to GS2 Series Specifications on page tGSX-52.
- For Reactor compatibility with GS3 AC Drives, please refer to LR Series Line Reactors on page tGSX-111.
- For Reactor compatibility with GS4 AC Drives, please refer to GS4 DURApulse Drives Accessories Line/Load Reactors on page tGSX-113.
- For Reactor compatibility with GS20(X) AC Drives, please refer to GS20(X) Optional Accessories Line Reactors/VTF Filters on page tGSX-44.

# Drives Accessories – Line/Load Reactors

# LR(2) Series Line/Load Reactors for AC Drives – Specifications

Part Number <sup>(0)</sup>	Price	Dimen- sion Drawing	Max Rated Amps	Induc- tance [mH]	Watt Loss	System Voltage	Weight (lb [kg])	Wire Range	Terminal Torque ( lb∙in )	Operating Temperature	Storage Temperature	Environ- ment
LR2-10P2-1PH <sup>(2)</sup>	\$126.00	13	10	1.35	21		4	18–12 AWG	10			NEMA: open IP00 no corrosive gases
LR2-10P5-1PH (2)	\$133.00	13	12	0.971	29		4	18–12 AWG	10	-40 – 104 °F	-40 – 149 °F	
LR2-11P0-1PH (1)(2)	\$181.00	14	17	1.03	53		8	18–4 AWG	20	[-40 – 40 °C]	[-40 – 65 °C]	
LR2-11P5-1PH (2)	\$192.00	15	34	0.342	64		12	18–4 AWG	20			
<u>R2-20P2-1PH</u> (2)(3)	\$72.00	16	4.2	6.4	23.5	240	1.4	22–12 AWG	9	122°F [50°C] max		
<u>R2-20P2</u> <sup>(3)</sup>	\$71.00	16	3.4	7.4	26.4	240	1.4	22–12 AWG	9	122°F [50°C] max		
<u>R2-20P5-1PH</u> (2)	\$85.00	17	7.6	3.56	39	240	3	22–12 AWG	9	122°F [50°C] max		
<u>.R2-20P5</u> <sup>(3)</sup>	\$80.00	16	5	4.6	30.6	240	1.4	22–12 AWG	9	122°F [50°C] max		
<u>.R2-20P7</u> (3)	\$88.00	17	8.2	2.9	49	240	3	22–12 AWG	9	122°F [50°C] max		
<u>.R-21P0-1PH</u> (2)	\$75.00	1	8	2.29	15.9	240	2.8 [1.3]	18–12 AWG	10	104°F [40°C] max		
. <u>R2-21P0-1PH</u> (1)(2)(3)	\$135.00	13	10	2.31	31	240	4	18–12 AWG	10	104°F [40°C] max		
<u>.R2-21P0</u> (3)	\$94.00	17	11.6	2.0	64	240	3.2	22–12 AWG	9	122°F [50°C] max		NEMA: open IP00 no corrosive gases
. <u>R2-21P5-1PH</u> (2)(3)	\$144.00	13	14	1.68	40	240	4	18–12 AWG	10	104°F [40°C] max		
<u>.R2-21P5</u> (3)	\$94.00	17	11.6	2.0	64	240	3.2	22–12 AWG	9	122°F [50°C] max		
<u>.R-22P0-1PH</u> (2)	\$83.00	2	12	1.53	24.3	240	4.3 [2.0]	18–12 AWG	20	104°F [40°C] max		
. <u>R2-22P0-1PH</u> (1)(2)(3)	\$176.00	14	17	1.03	53	240	8	18–4 AWG	20	104°F [40°C] max		
<u>.R2-22P0</u> <sup>(3)</sup>	\$95.00	17	11.6	2.0	64	240	3.2	22–12 AWG	9	122°F [50°C] max		
<u>.R-23P0-1PH</u> (2)	\$180.00	2	17	1.08	27.3	240	4.3 [2.0]	18–12 AWG	20	104°F [40°C] max		
<u>.R-23P0</u>	\$142.00	3	10.6	0.97	38	208/240	4.0 [1.8]	18–12 AWG	10	104°F [40°C] max	-40 – 149 °F	
LR-25P0	\$169.00	4	16.7	0.626	48	208/240	8.0 [3.6]	18–4 AWG	20	104°F [40°C] max	[-40 – 65 °C]	
<u>R-27P5</u>	\$180.00	4	24.2	0.434	65	208/240	8.0 [3.6]	18–4 AWG	20	104°F [40°C] max		
<u>R-2010</u>	\$211.00	5	30.8	0.342	96	208/240	12 [5.4]	18–4 AWG	20	104°F [40°C] max		
<u>R-2015</u>	\$249.00	5	46.2	0.22	64	208/240	12 [5.4]	18–4 AWG	20	104°F [40°C] max		
<u>R-2020</u>	\$272.00	5	59.4	0.172	85	208/240	12 [5.4]	18–4 AWG	20	104°F [40°C] max		
<u>.R-2025</u>	\$402.00	6	74.8	0.138	94	208/240	15 [6.8]	18–4 AWG	18–16 AWG: 25 14–6 AWG: 30 4 AWG: 35	104°F [40°C] max		
L <u>R-2030</u>	\$428.00	7	88	0.116	135	208/240	33 [15]	6AWG-2/0 (AL or CU)	120	104°F [40°C] max		
L <u>R-2040</u>	\$501.00	7	114	0.0886	149	208/240	33 [15]	6AWG-2/0 (AL or CU)	120	104°F [40°C] max		
L <u>R-2050</u>	\$585.00	8	143	0.0699	154	208/240	36 [16]	6AWG–250kcmil (AL or CU)	275	104°F [40°C] max		
<u>R-2060</u>	\$651.00	18	180	0.0624	209	208/240	46	6AWG-250MCM	275	104°F [40°C] max		
<u>.R-2075</u>	\$669.00	19	211	0.0487	294	208/240	52	4AWG-600MCM	500	104°F [40°C] max		
LR-2100	\$737.00	19	280	0.0364	276	208/240	52	4AWG-600MCM	500	104°F [40°C] max		

Impedence = 5% for reactors marked with this note, but they function as 3% reactors in the ADC drive application.
 Circle phase line reactors are fer use and with single phase drive inside. Single phase line reactors about MOT he installed

2) Single-phase line reactors are for use only with single-phase drive inputs. Single-phase line reactors should NOT be installed on the output side of AC drives.

3) Optional mounting accessories are available for these models. See "Line/Load Reactors – Mounting Accessories" section for details.

4) LR-4250 & LR-4300 have dual-connector lugs, and will require multiple conductors per phase of the appropriate size to fit the lugs.

(table continued next page)

# LR(2) Series Line/Load Reactors for AC Drives – Specifications

Part Number (1)	Price	Dimen- sion Drawing	Max Rated Amps	Induc- tance [mH]	Watt Loss	System Voltage	Weight (lb [kg])	Wire Range	Terminal Torque [lb∙in]	Operating Temperature	Storage Temper- ature	Environ- ment
<u>LR2-40P2</u> (3)	\$54.00	16	1.4	31.5	5		1.3	22–12 AWG	9	122°F [50°C] max		
<u>LR2-40P3</u> <sup>(3)</sup>	\$57.00	16	1.7	27.6	6.2		1.3	22–12 AWG	9	122°F [50°C] max		
<u>LR2-40P5</u> (3)	\$58.00	16	1.6	20	9.7		1.3	22–12 AWG	9	122°F [50°C] max		
<u>LR2-40P7</u> <sup>(3)</sup>	\$61.00	16	2.3	13.8	12.1		1.3	22–12 AWG	9	122°F [50°C] max		
<u>LR2-41P0</u> (3)	\$66.00	16	2.3	10.5	25.2 26.4		1.2	22–12 AWG	9	122°F [50°C] max		
<u>LR2-41P5</u> (3)	\$73.00	16	3.4	7.4			1.4	22–12 AWG	9	122°F [50°C] max		
<u>LR2-42P0</u> (3)	\$74.00	16	4.2	6.5	23.5		1.4	22–12 AWG	9	122°F [50°C] max		
<u>LR2-43P0</u> (3)	\$82.00	16	5	4.6	30.6		1.4	22–12 AWG	9	122°F [50°C] max		
<u>LR2-44P0</u> <sup>(3)</sup>	\$88.00	17	7.6	3.56	39	1	3	22–12 AWG	9	122°F [50°C] max		
<u>LR2-45P0</u> (3)	\$90.00	17	8.2	2.9	49		3	22–12 AWG	9	122°F [50°C] max		
<u>LR2-47P5</u> <sup>(3)</sup>	\$98.00	17	11.6	2	64		3.2	22–12 AWG	9	122°F [50°C] max		
<u>LR-4010</u>	\$188.00	3	14	1.29	64	1	4.0 [1.8]	18–12 AWG	10	104°F [40°C] max		
LR-4015	\$207.00	4	21	0.912	65		8.0 [3.6]	18–4 AWG	20	104°F [40°C] max		
LR-4020	\$240.00	4	27	0.694	94 79		8.0 [3.6]	18–4 AWG	20	104°F [40°C] max		NEMA: op
LR-4025	\$253.00	5	34	0.569	96	480	10 [4.5]	18–4 AWG	20	104°F [40°C] max	-40 – 149 °F [-40 – 65 °C]	IP00 no corrosive gases
<u>LR-4030</u>	\$303.00	5	40	0.469	105		10 [4.5]	18–4 AWG	20	104°F [40°C] max		
LR-4040	\$334.00	6	52	0.387	114		15 [6.8]	18–4 AWG	20	104°F [40°C] max		
LR-4050	\$391.00	9	65	0.295	0.295 114				22–16	104°F [40°C] max		
<u>LR-4060</u>	\$404.00	9	77	0.227	169	169	25 [11]	#22–4 AWG	AWG: 25 14–6 AWG: 30 4 AWG: 35	104°F [40°C] max		
<u>LR-4075</u>	\$612.00	7	96	0.196	193		33 [15]	2/0 – 6AWG (AL or CU)	120	104°F [40°C] max		
LR-4100	\$734.00	10	124	0.152	225			250kcmil – 6AWG (AL or CU)	275	104°F [40°C] max		
LR-4125	\$840.00	10	156	0.117	254		46 [21]			104°F [40°C] max		
LR-4150	\$973.00	10	180	0.103	299					104°F [40°C] max		
<u>LR-4200</u>	\$1,082.00	11	240	0.0839	280		74 [34]	(1) 4 AWG – 600kcmil (2) 1/0 – 250kcmil	500	104°F [40°C] max		
<u>LR-4250</u> (4)	\$1,226.00	12	302	0.0654	337		74 [34]	(2)** 4 AWG – 350kcmil	275	104°F [40°C] max		
<u>LR-4300</u> (4)	\$1,351.00	12	361	0.0565	381		[0.]	(AL or CU)	2.0	104°F [40°C] max		
<u>LR2-51P0</u> ( <sup>3)</sup>	\$70.00	16	2.1	16.2	16.2		1.3	22–12 AWG	9	122°F [50°C] max		
<u>LR2-51P5</u> <sup>(3)</sup>	\$88.00	16	3.4	11.5	17.2		1.4	22–12 AWG	9	122°F [50°C] max		
<u>LR2-52P0</u> (3)	\$89.00	16	3.2	10.2	20.5		1.5	22–12 AWG	9	122°F [50°C] max		
<u>LR2-53P0</u> <sup>(3)</sup>	\$91.00	17	4.8	7.07	30		3.5	22–12 AWG	9	122°F [50°C] max		
<u>LR2-54P0</u> (3)	\$101.00	17	7.6	5.63	30		2.9	22–12 AWG	9	122°F [50°C] max		
<u>LR2-55P0</u> (3)	\$104.00	17	7.6	4.52	44		3	22–12 AWG	9	122°F [50°C] max		
<u>LR2-57P5</u> (3)	\$116.00	17	9.6	3.1	57		3.2	22–12 AWG	9	122°F [50°C] max		
LR-5010	\$194.00	3	11	2.47	43.8		4.0 [1.8]	18–12 AWG	10	104°F [40°C] max		

2) Single-phase line reactors are for use only with single-phase drive inputs. Single-phase line reactors should NOT be installed on the output side of AC drives.
 3) Optional mounting accessories are available for these models. See "Line/Load Reactors – Mounting Accessories" section for details.

4) LR-4250 & LR-4300 have dual-connector lugs, and will require multiple conductors per phase of the appropriate size to fit the lugs.

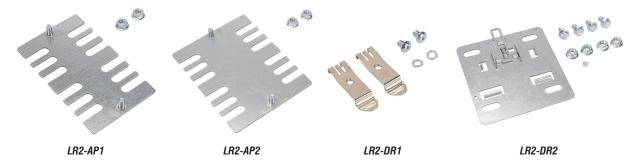
# 1-800-633-0405 **Drives Accessories – Line/Load Reactor Mounting Accessories**

# LR(2) Series Line/Load Reactors – Mounting Accessories

LR(2) series reactors have differing mounting options depending on the model. The models listed below have an integral two-bolt mounting method, and also offer optional mounting adapters that allow other mounting methods.

Adapter Plate Kits <u>LR2-AP1</u> and <u>LR2-AP2</u> allow for universal panel mounting with these models.

DIN Rail Mounting Kits LR2-DR1 and LR2-DR2 allow DIN rail mounting with these models.



LR2 Series Line Reactor Mounting Adapters								
Part Number	Price	Description	Dimension Drawing					
LR2-AP1	\$22.50	Adapter Plate Kit; includes 2 flange nuts (10-32); Dimensions 4.45" x 2.63"	16a					
<u>LR2-AP2</u>	\$22.50	Adapter Plate Kit; includes 2 flange nuts (10-32); Dimensions 4.45" x 3.51"	16b					
LR2-DR1	\$22.50	DIN Rail Mounting Clips and Hardware Kit; includes 2 screws (M5-0.8 x 8mm), 2 washers, 2 clips	16c					
LR2-DR2	\$34.00	DIN Rail Mounting Plate and Hardware Kit; includes 4 bolts (0.25-20 x 0.50) and 4 flange nuts	17a					

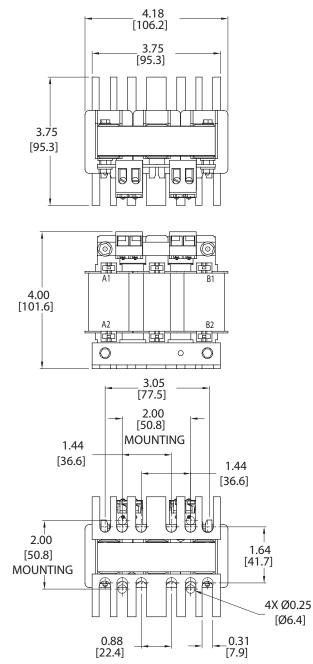
LR2 Line Reactor Mounting Adapter Selection Table									
ADC Line Reactor Part #	Adapter Pla	te Kits Part #	DIN Rail Mount Kits Part #						
ADG LINE REACION PAIL #	LR2-AP1	LR2-AP2	<u>LR2-DR1</u>	<u>LR2-DR2</u>					
LR2-20P2-1PH	$\checkmark$	√	$\checkmark$	-					
LR2-20P2		√	$\checkmark$	_					
LR2-20P5-1PH	_	-	-	√					
LR2-20P5		√	√	_					
LR2-20P7	_	_	_	√					
<u>LR2-21P0</u>	—		—	$\checkmark$					
LR2-21P5	_	_	_	√					
<u>LR2-22P0</u>	_	_	-	$\checkmark$					
LR2-40P2		$\checkmark$		_					
LR2-40P3		√		_					
<u>LR2-40P5</u>		$\checkmark$	$\checkmark$	_					
<u>LR2-40P7</u>		$\checkmark$		_					
<u>LR2-41P0</u>		$\checkmark$		_					
<u>LR2-41P5</u>		$\checkmark$	$\checkmark$	_					
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<u>LR2-44P0</u>	—	_	_	$\checkmark$					
<u>LR2-45P0</u>	—	_	—	$\checkmark$					
<u>LR2-47P5</u>	—	_	_	$\checkmark$					
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<u>LR2-51P5</u>	$\checkmark$	$\checkmark$	$\checkmark$	_					
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<u>LR2-53P0</u>	_	_	_	$\checkmark$					
<u>LR2-54P0</u>	-	-	-	$\checkmark$					
<u>LR2-55P0</u>	-	-	-	$\checkmark$					
<u>LR2-57P5</u>	-	_	_	√					

# LR(2) Series Line/Load Reactors – Dimensions

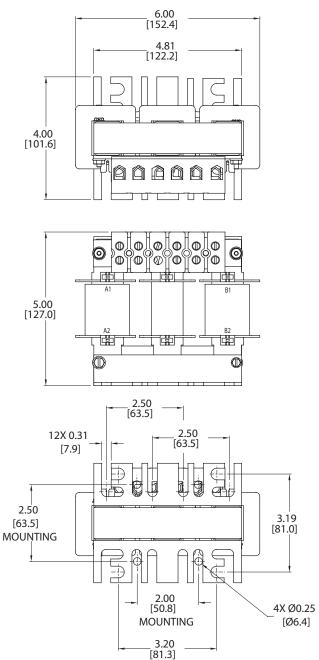
( Units = in [mm] )

See our website: <u>www.AutomationDirect.com</u> for complete engineering drawings.

#### 1) LR(2) Line Reactors Dimension Drawing #1 <u>LR-21P0-1PH</u>



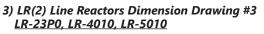
2) LR(2) Line Reactors Dimension Drawing #2 LR-22P0-1PH, LR-23P0-1PH

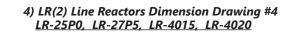


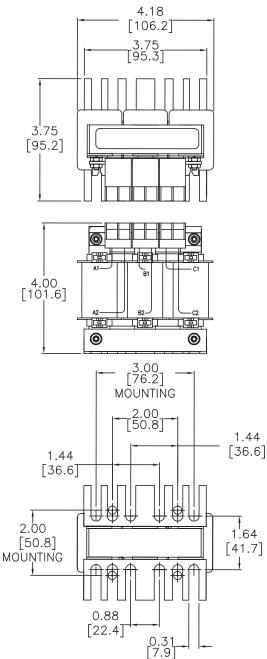
# LR(2) Series Line/Load Reactors – Dimensions

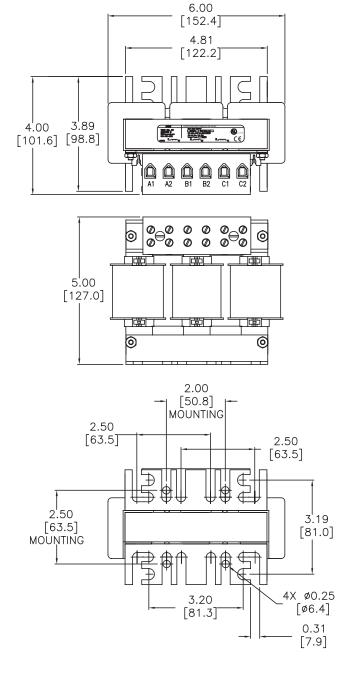
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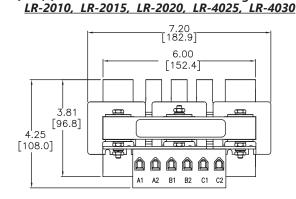


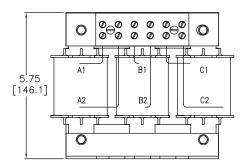
# LR(2) Series Line/Load Reactors – Dimensions

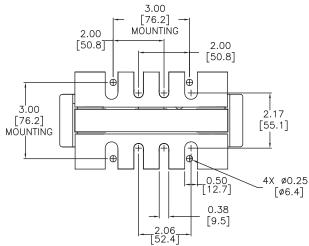
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#### LOAD Reactors – DIMENSIONS See our website: <u>www.AutomationDirect.com</u> for complete engineering drawings.

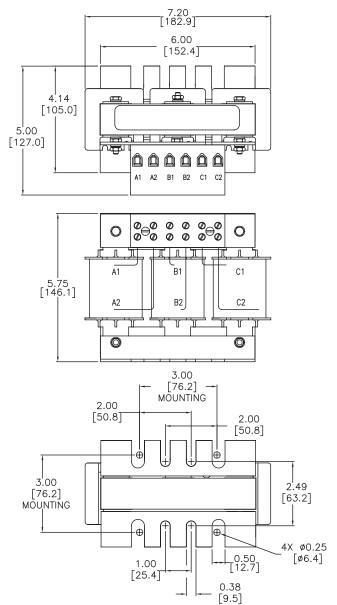
5) LR(2) Line Reactors Dimension Drawing #5 6) LR







#### 6) LR(2) Line Reactors Dimension Drawing #6 LR-2025, LR-4040

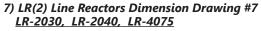


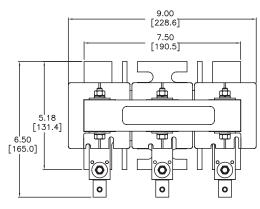
# LR(2) Series Line/Load Reactors – Dimensions

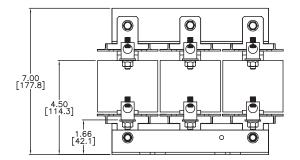
( Units = in [mm] )

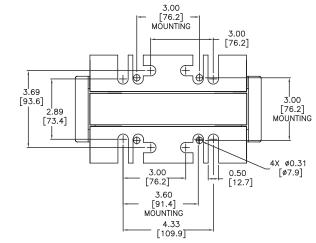
# LINE/LOAD REACTORS – DIMENSIONS See our website: <u>www.AutomationDirect.com</u> for complete engineering drawings.

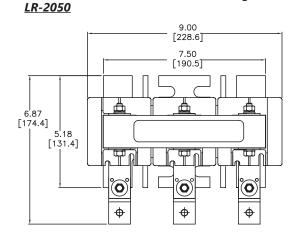
8) LR(2) Line Reactors Dimension Drawing #8

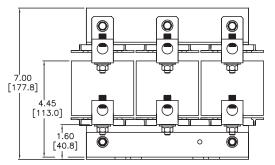


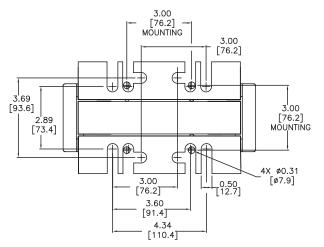










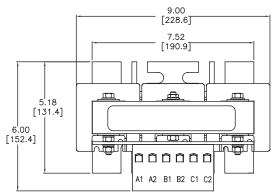


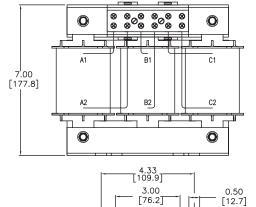
# LR(2) Series Line/Load Reactors – Dimensions

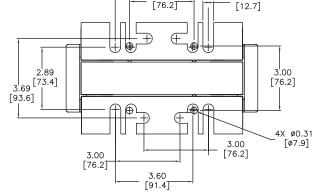
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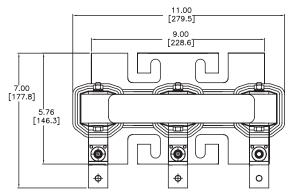
#### 9) LR(2) Line Reactors Dimension Drawing #9 <u>LR-4050, LR-4060</u>

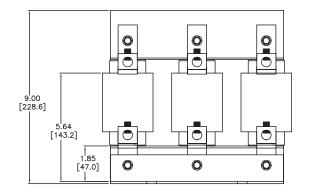


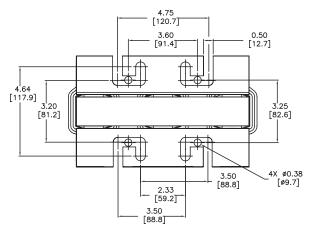




10) LR(2) Line Reactors Dimension Drawing #10 <u>LR-4100, LR-4125, LR-4150</u>





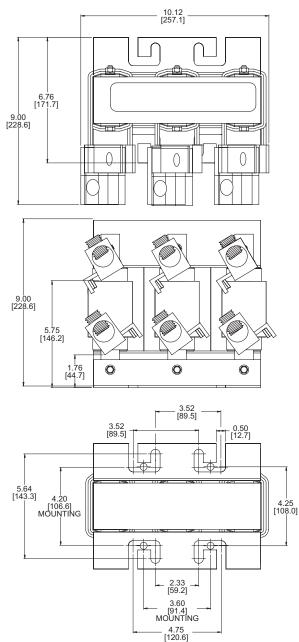


# LR(2) Series Line/Load Reactors – Dimensions

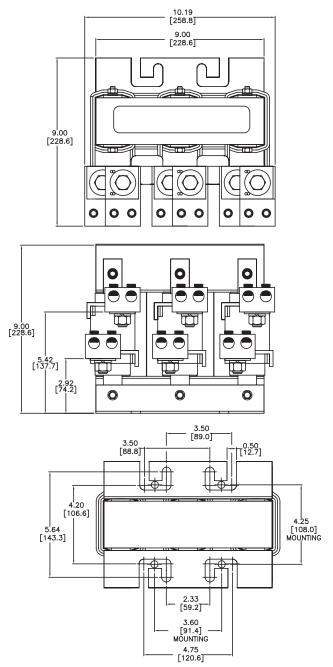
( Units = in [mm] )

# See our website: <u>www.AutomationDirect.com</u> for complete engineering drawings.

#### 11) LR(2) Line Reactors Dimension Drawing #11 <u>LR-4200</u>



#### 12) LR(2) Line Reactors Dimension Drawing #12 LR-4250, LR-4300

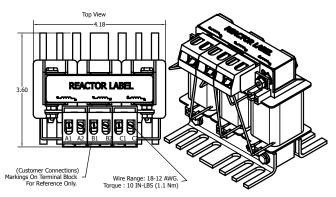


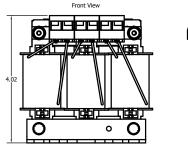
# LR(2) Series Line/Load Reactors – Dimensions

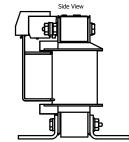
( Units = in [mm] )

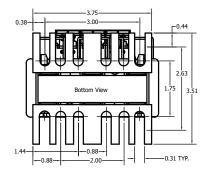
See our website: <u>www.AutomationDirect.com</u> for complete engineering drawings.

13) LR(2) Line Reactors Dimension Drawing #13 <u>LR2-10P2-1PH, LR2-10P5-1PH, LR2-21P0-1PH, LR2-21P5-</u> <u>1PH</u>

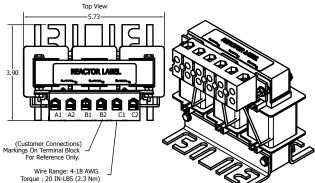


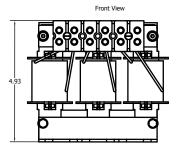


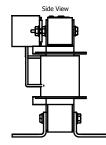


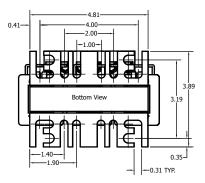


14) LR(2) Line Reactors Dimension Drawing #14 <u>LR2-11P0-1PH, LR2-22P0-1PH</u>







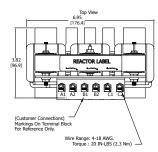


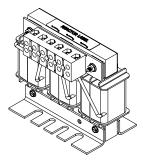
# LR(2) Series Line/Load Reactors – Dimensions

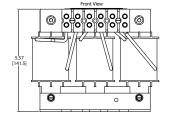
( Units = in [mm] )

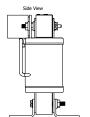
See our website: <u>www.AutomationDirect.com</u> for complete engineering drawings.

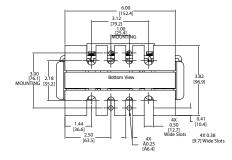
#### 15) LR(2) Line Reactors Dimension Drawing #15 LR2-11P5-1PH



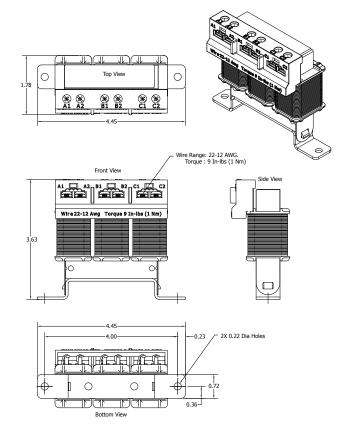








<u>LR2-40P5, LR2-40P7, LR2-41P0, LR2-41P5, LR2-42P0,</u> <u>LR2-43P0, LR2-51P0, LR2-51P5, LR2-52P0</u>



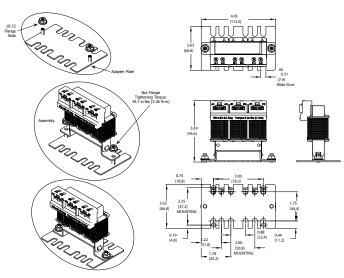
# LR(2) Series Line/Load Reactors – Dimensions

( Units = in [mm] )

#### See our website: <u>www.AutomationDirect.com</u> for complete engineering drawings.

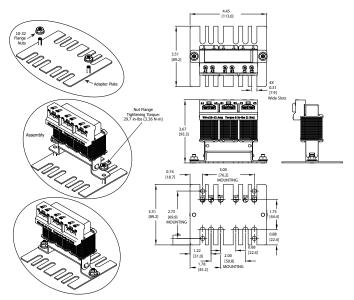
#### 16a) LR(2) Line Reactors Dimension Drawing #16a <u>LR2-AP1</u> Adapter Plate for Universal Mounting for:

LR2-20P2-1PH, LR2-20P2, LR2-20P5, LR2-40P2, LR2-40P3, LR2-40P5, LR2-40P7, LR2-41P0, LR2-41P5, LR2-42P0, LR2-43P0, LR2-51P0, LR2-51P5, LR2-52P0



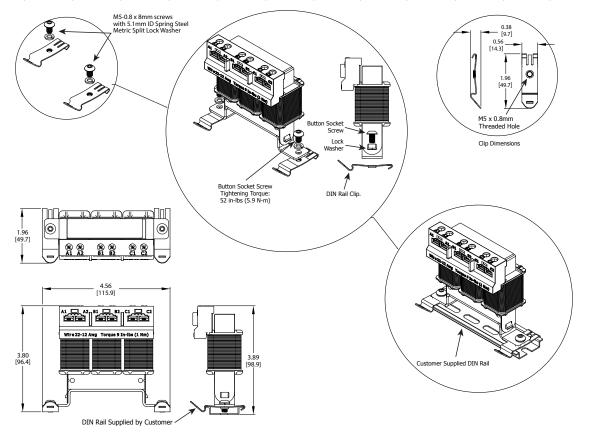
#### 16b) LR(2) Line Reactors Dimension Drawing # 16b <u>LR2-AP2</u> Adapter Plate for Universal Mounting for:

LR2-20P2-1PH, LR2-20P2, LR2-20P5, LR2-40P2, LR2-40P3, LR2-40P5, LR2-40P7, LR2-41P0, LR2-41P5, LR2-42P0, LR2-43P0, LR2-51P0, LR2-51P5, LR2-52P0



#### 16c) LR(2) Line Reactors Dimension Drawing #16c <u>LR2-DR1</u> Hardware Kit for DIN Rail Mounting for:

LR2-20P2-1PH, LR2-20P2, LR2-20P5, LR2-40P2, LR2-40P3, LR2-40P5, LR2-40P7, LR2-41P0, LR2-41P5, LR2-42P0, LR2-43P0, LR2-51P0, LR2-51P5, LR2-52P0



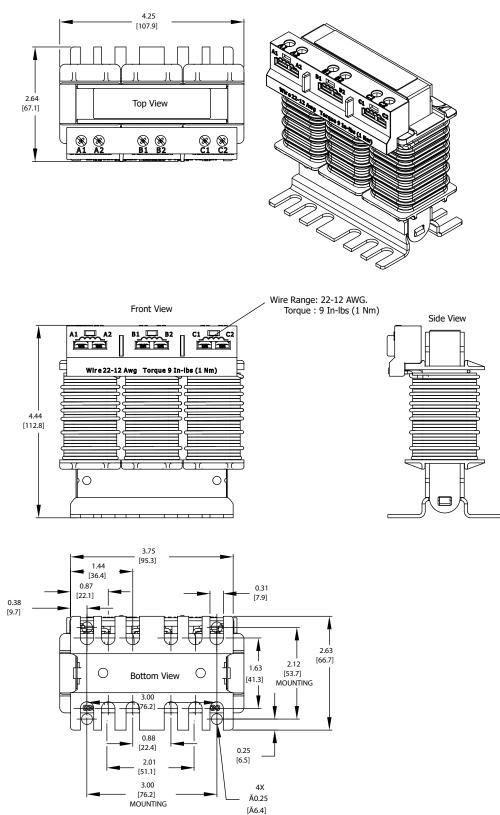
# LR(2) Series Line/Load Reactors – Dimensions

( Units = in [mm] )

See our website: <u>www.AutomationDirect.com</u> for complete engineering drawings.

17) LR(2) Line Reactors Dimension Drawing #17

<u>LR2-20P5-1PH, LR2-20P7, LR2-21P0, LR2-21P5, LR2-22P0, LR2-44P0, LR2-45P0, LR2-47P5, LR2-53P0, LR2-54P0, LR2-55P0, LR2-57P5</u>



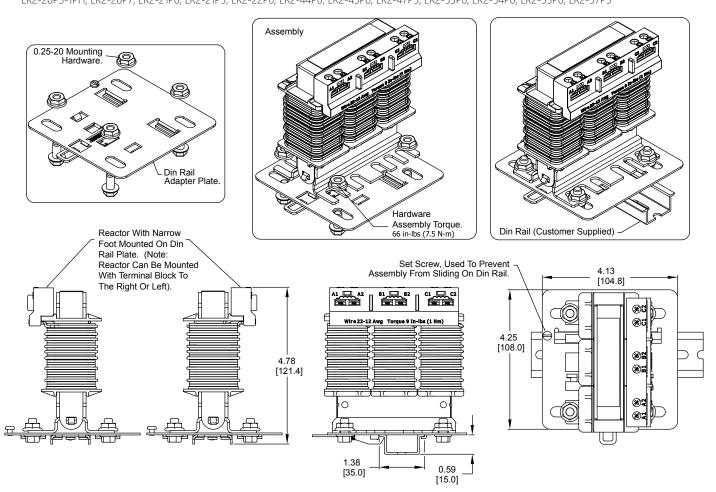
# LR(2) Series Line/Load Reactors – Dimensions

( Units = in [mm] )

#### See our website: <u>www.AutomationDirect.com</u> for complete engineering drawings.

#### 17a) LR(2) Line Reactors Dimension Drawing #17a

LR2-DR2 Hardware Kit for DIN Rail Mounting for: LR2-20P5-1PH, LR2-20P7, LR2-21P0, LR2-21P5, LR2-22P0, LR2-44P0, LR2-45P0, LR2-47P5, LR2-53P0, LR2-54P0, LR2-55P0, LR2-57P5

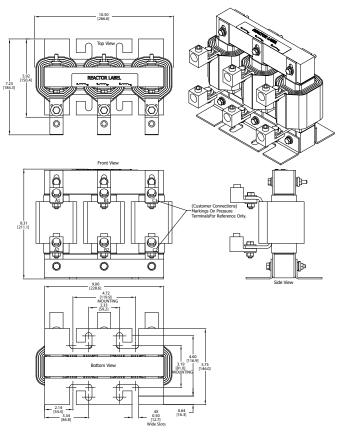


# LR(2) Series Line/Load Reactors – Dimensions

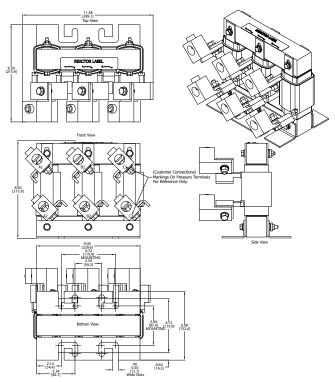
( Units = in [mm] )

See our website: <u>www.AutomationDirect.com</u> for complete engineering drawings.

#### 18) LR(2) Line Reactors Dimension Drawing #18 <u>LR-2060</u>



19) LR(2) Line Reactors Dimension Drawing #19 LR2075, LR2100



1-800-633-0405 **GS/DURAPULSE** Drives Accessories – Line/Load Reactors Line/Load Reactors for GS/DURAPULSE AC Drives – Generic One-Line

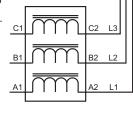


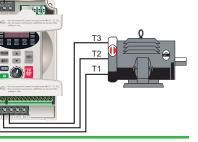
0000

WARNING: CONSULT THE APPLICABLE GS DRIVE USER MANUAL BEFORE ACTUALLY WIRING THE DRIVE!

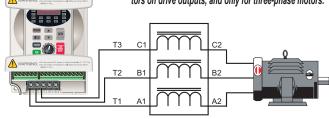
# Input side of the drive

When installed on the input side of the AC drive, line reactors will reduce line notching, and limit current and voltage spikes and surges from the incoming line. The line reactor will also reduce harmonic distortion from the drive onto the line. Units are installed in front of the AC drive as shown.





Note: Single phase line reactors should NOT be installed on the output of the AC drive. Use only three-phase reactors on drive outputs, and only for three-phase motors.

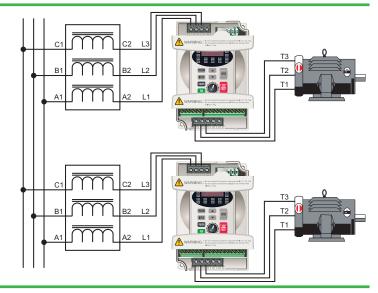


# Output side of the drive

0000

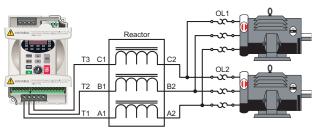
When installed on the output side of the drive, line reactors protect the drive from short circuits at the load. Voltage and current waveforms from the drive are enhanced, reducing motor overheating and noise emissions.

Note: If installing a line reactor on the output side of the drive, especially with motor lead lengths in excess of 75 feet, lower the drive PWM output carrier frequency to 4kHz in order to protect the line reactor from excess heating and possible damage.



# **Multiple drives**

Individual line reactors are recommended when installing multiple drives on the same power line. Individual line reactors eliminate crosstalk between multiple drives and provide isolated protection for each drive for its own specific load.



# Single phase applications

Some of the line reactors are listed for use with singlephase input power. Make sure that terminals B1 and B2, if present, are properly insulated before any connections are made.

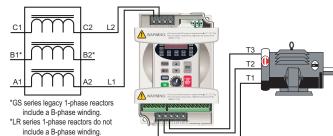


WARNING: ENSURE THAT TERMINALS B1 AND B2 ARE PROPERLY INSULATED BEFORE MAKING ANY CONNECTIONS TO SINGLE-PHASE POWER.



A single reactor can be used for multiple motors on the same drive, if the motors operate simultaneously. Size the reactor based upon the total horsepower of all the motors. Select a reactor with a current rating greater than the sum of the motor full-load currents. Overload relays are recommended for use in multi-motor applications.

Note: A single reactor should be used with multiple motors only when the motors will always operate simultaneously.



# 1-800-633-0405 **GS/DURA**PULSE **Drives Accessories** – Line/Load Reactors for GS/DURAPULSE AC Drives – Additional

# **Specifications**

		Line React	ors – LR Series –	Additional Spec	cification	S	
De della setera	D. inc	Product Wire Desire		Territori	Temperat		
Part Number	Price	Weight	Wire Range	Terminal Torque	Operating	Storage	Environment
<u>LR-20P5</u>	Retired	4.0 lb [1.8 kg]	#12-#18 AWG	10 lb∙in			NEMA: open IP00 no corrosive gases
<u>LR-21P0-1PH</u>	\$75.00	2.8 lb [1.3 kg]	#12#18 AWG	10 lb∙in	-		
<u>LR-22P0-1PH</u>	\$83.00	4.3 lb [2.0 kg]	#12#18 AWG	20 lb∙in			
<u>LR-23P0-1PH</u>	\$180.00	4.3 lb [2.0 kg]	#12#18 AWG	20 lb∙in			
LR-23P0	\$142.00	4.0 lb [1.8 kg]	#12#18 AWG	10 lb∙in			
LR-25P0	\$169.00	8.0 lb [3.6 kg]	#18–#4 AWG	20 lb∙in			
LR-27P5	\$180.00	8.0 lb [3.6 kg]	#18–#4 AWG	20 lb∙in			
<u>LR-2010</u>	\$211.00	12 lb [5.4 kg]	#18–#4 AWG	20 lb∙in			
<u>LR-2015</u>	\$249.00	12 lb [5.4 kg]	#18–#4 AWG	20 lb∙in			
LR-2020	\$272.00	12 lb [5.4 kg]	#18–#4 AWG	20 lb∙in			
<u>LR-2025</u>	\$402.00	15 lb [6.8 kg]	#18–#4 AWG	#18–#16 AWG: 25 lb·in #14–#6 AWG: 30 lb·in #4 AWG: 35 lb·in	_	-40 – 149 °F [-40 – 65 °C]	
<u>LR-2030</u>	\$428.00	33 lb [15 kg]	2/0 – #6AWG (AL or CU)	120			
<u>LR-2040</u>	\$501.00	33 lb [15 kg]	2/0 – #6AWG (AL or CU)	120	-40 – 104 °F 		
<u>LR-2050</u>	\$585.00	36 lb [16 kg]	250kcmil – #6AWG (AL or CU)	275			
<u>LR-4010</u>	\$188.00	4.0 lb [1.8 kg]	#12#18 AWG	10 lb·in			
<u>LR-4015</u>	\$207.00	8.0 lb [3.6 kg]	#18–#4 AWG	20 lb∙in			
<u>LR-4020</u>	\$240.00	8.0 lb [3.6 kg]	#18–#4 AWG	20 lb·in			
<u>LR-4025</u>	\$253.00	10 lb [4.5 kg]	#18–#4 AWG	20 lb·in			
<u>LR-4030</u>	\$303.00	10 lb [4.5 kg]	#18–#4 AWG	20 lb·in			
<u>LR-4040</u>	\$334.00	15 lb [6.8 kg]	#18–#4 AWG	20 lb·in			
<u>LR-4050</u>	\$391.00			#22-#16 AWG: 25 lb·in			
<u>LR-4060</u>	\$404.00	25 lb [11 kg]	#22–#4 AWG	#14–#6 AWG: 30 lb·in #4 AWG: 35 lb·in			
<u>LR-4075</u>	\$612.00	33 lb [15 kg]	2/0 – #6AWG (AL or CU)	120 lb∙in	_		
<u>LR-4100</u>	\$734.00	46 lb [21 kg]	250kcmil – #6AWG (AL or CU)	275 lb∙in			
<u>LR-4125</u>	\$840.00	46 lb [21 kg]	250kcmil – #6AWG (AL or CU)	275 lb∙in			
<u>LR-4150</u>	\$973.00	46 lb [21 kg]	250kcmil – #6AWG (AL or CU)	275 lb∙in			
<u>LR-4200</u>	\$1,082.00	74 lb [34 kg]	(1) 600kcmil – #4 AWG (2) 250kcmil – 1/0	500 lb∙in			
<u>LR-4250</u>	\$1,226.00	74 lb [34 kg]	(2)* 350kcmil – #4 AWG (AL or CU)	275 lb∙in			
<u>LR-4300</u>	\$1,351.00	74 lb [34 kg]	(2)* 350kcmil – #4 AWG (AL or CU)	275 lb∙in			
<u>LR-5010</u>	\$194.00	4.0 lb [1.8 kg]	#12-#18 AWG	10 lb∙in			
* LR-4250 & LR-4300	have dual-coni	nector lugs, and will	require multiple conductors per phase	of the appropriate size to fit the	lugs.		