


DATA SHEET
**Three Phase AC Line Reactor
PQR-2 Series**
Description

These series range of AC line reactors are designed to be used in Power distribution (Line side of Drive) provide input impedance which helps reduce harmonic distortion and increase VFD component lifetime.

Technical Specifications:

Nominal Operating Voltage	:	3x380 to 480 VAC \pm 10 %
Operating Frequency	:	50/60Hz
Current Ratings	:	1.76A to 1010A @ 45°C
Impedance	:	2% at 400VAC, 50Hz at rated current
High Potential test voltage	:	2000 VAC for 2 sec
Overload Capability	:	1.6 times of rated current for 1 Min/hr
Design Corresponding to	:	EN 61558-2-20, EN 60076-6, UL508
Temperature range	:	-45°C to +100°C
Climatic Category	:	45/100/21
Type of Cooling	:	Natural Cooling AN
Protection Category	:	IP 00
Insulation Class	:	Class N (PURESINE-200(N)_E531262)
Voltage Drop	:	4.62V (\pm 20%)

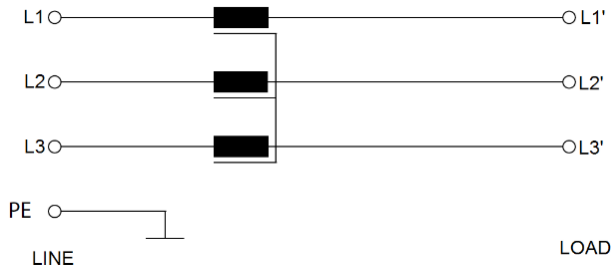
Features:

- Reduction of main harmonics
- Impedance at 2%
- Protection of motor drive electronics
- Limitations of inrush Currents
- Prevention from nuisance tripping caused by power line voltage spikes
- Improvement of true power factor
- Reduce Power Distortion and Low Ripple
- Comply with Industry standards

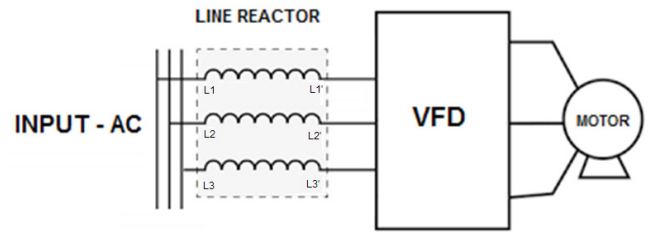
Applications:

- Power Quality Applications
- Motor Drives and Various adjustable speed drive systems such as: Elevators, Robotics, Machinery
- Harmonics Reduction
- Process Automation Equipment

Typical Circuit Diagram



Connection Diagram

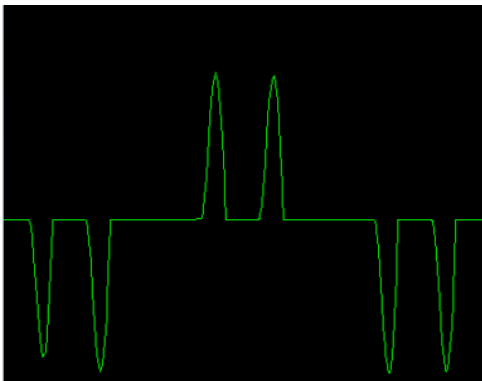


Ordering Information :

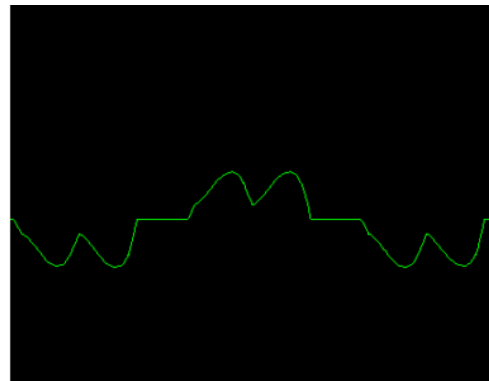
Model Number	Part Number	Rated Current (A)	Rated Power @480V (KW)	Rated Power (HP)	Inductance (mH)	Termination	Weight (Kgs)
PQR-23400-1.8-C3	E109474-1	1.76	1.46	1.96	8.35	Connector	0.8
PQR-23400-2.4-C3	E109475-1	2.41	2.00	2.69	6.10	Connector	0.8
PQR-23400-3.5-C3	E109476-1	3.53	2.93	3.93	4.16	Connector	1
PQR-23400-5-C3	E109477-1	5	4.16	5.57	2.94	Connector	1
PQR-23400-6-C3	E109478-1	6	4.99	6.69	2.45	Connector	1.2
PQR-23400-6.5-C3	E109479-1	6.42	5.34	7.15	2.29	Connector	1.2
PQR-23400-9-C3	E109480-1	8.82	7.33	9.83	1.67	Connector	1.6
PQR-23400-10-C3	E109481-1	10	8.31	11.14	1.47	Connector	2.8
PQR-23400-12-C3	E109482-1	12.03	10.00	13.41	1.22	Connector	2.8
PQR-23400-13-C3	E109483-1	13	10.81	14.49	1.13	Connector	2.8
PQR-23400-15-C3	E109484-1	15	12.47	16.72	0.98	Connector	2.8
PQR-23400-16-C3	E109485-1	16	13.30	17.83	0.92	Connector	2.8
PQR-23400-18-C3	E109486-1	17.64	14.67	19.66	0.83	Connector	2.8
PQR-23400-20-C3	E109487-1	20	16.63	22.29	0.74	Connector	3.2
PQR-23400-24-C3	E109488-1	24.06	20.00	26.81	0.61	Connector	4
PQR-23400-25-C3	E109489-1	25	20.78	27.86	0.59	Connector	4
PQR-23400-26-C3	E109490-1	26	21.62	28.98	0.57	Connector	4.2
PQR-23400-30-C3	E109491-1	29.67	24.67	33.07	0.50	Connector	4.2
PQR-23400-32-L3	E109492-1	32	26.60	35.66	0.46	Cable Lugs	7.5
PQR-23400-35-L3	E109493-1	35.28	29.33	39.32	0.42	Cable Lugs	7.5
PQR-23400-40-L3	E109494-1	40	33.26	44.58	0.37	Cable Lugs	9.6
PQR-23400-45-L3	E109495-1	45	37.41	50.15	0.33	Cable Lugs	9.6
PQR-23400-48-L3	E109496-1	48.11	40.00	53.62	0.31	Cable Lugs	9.6
PQR-23400-55-L3	E109497-1	55	45.73	61.30	0.27	Cable Lugs	9.6
PQR-23400-59-L3	E109498-1	59.34	49.33	66.13	0.25	Cable Lugs	9.8
PQR-23400-65-L3	E109499-1	65	54.04	72.44	0.23	Cable Lugs	9.8
PQR-23400-70-L3	E109500-1	70	58.20	78.01	0.21	Cable Lugs	9.8
PQR-23400-72-L3	E109501-1	72.17	60.00	80.43	0.20	Cable Lugs	10
PQR-23400-75-L3	E109502-1	75	62.35	83.58	0.20	Cable Lugs	10
PQR-23400-80-L3	E109503-1	80	66.51	89.16	0.18	Cable Lugs	13.8
PQR-23400-85-L3	E109504-1	85	70.67	94.73	0.17	Cable Lugs	13.8
PQR-23400-90-L3	E109505-1	88.21	73.34	98.31	0.17	Cable Lugs	13.8
PQR-23400-100-B3	E109506-1	100	83.14	111.45	0.15	Busbar	14.6
PQR-23400-110-B3	E109507-1	110	91.45	122.59	0.13	Busbar	14.6
PQR-23400-115-B3	E109508-1	115	95.61	128.16	0.13	Busbar	14.6
PQR-23400-120-B3	E109509-1	120.28	100.00	134.05	0.12	Busbar	14.6
PQR-23400-125-B3	E109510-1	125	103.92	139.31	0.12	Busbar	20
PQR-23400-130-B3	E109511-1	130	108.08	144.88	0.11	Busbar	20
PQR-23400-145-B3	E109512-1	144.34	120.00	160.86	0.10	Busbar	20
PQR-23400-160-B3	E109513-1	160.00	133.02	178.31	0.09	Busbar	20

Model Number	Part Number	Rated Current (A)	Rated Power @480V (KW)	Rated Power (HP)	Inductance (mH)	Termination	Weight (Kgs)
PQR-23400-180-B3	E109514-1	176.41	146.66	196.60	0.08	Busbar	22
PQR-23400-200-B3	E109515-1	200	166.28	222.89	0.07	Busbar	22
PQR-23400-215-B3	E109516-1	211.7	176.00	235.93	0.07	Busbar	22
PQR-23400-220-B3	E109517-1	220	182.90	245.18	0.07	Busbar	22
PQR-23400-260-B3	E109518-1	256.6	213.33	285.97	0.06	Busbar	35
PQR-23400-300-B3	E109519-1	300	249.42	334.34	0.05	Busbar	35
PQR-23400-320-B3	E109520-1	320.75	266.67	357.46	0.05	Busbar	35
PQR-23400-400-B3	E109521-1	400.94	333.34	446.83	0.04	Busbar	48
PQR-23400-510-B3	E109522-1	505.18	420.00	563.00	0.03	Busbar	62
PQR-23400-570-B3	E109523-1	569	473.06	634.13	0.03	Busbar	72
PQR-23400-600-B3	E109524-1	600	498.83	668.67	0.02	Busbar	74
PQR-23400-645-B3	E109525-1	645	533.75	715.48	0.02	Busbar	78
PQR-23400-700-B3	E109526-1	700	581.97	780.12	0.02	Busbar	78
PQR-23400-750-B3	E109527-1	750	623.54	835.84	0.02	Busbar	82
PQR-23400-800-B3	E109528-1	802	666.77	893.79	0.02	Busbar	82
PQR-23400-850-B3	E109529-1	850	706.68	947.29	0.02	Busbar	82
PQR-23400-900-B3	E109530-1	900	748.25	1003.01	0.02	Busbar	86
PQR-23400-1000-B3	E109531-1	1010	839.70	1125.60	0.01	Busbar	86

Advantages of having Line Reactor

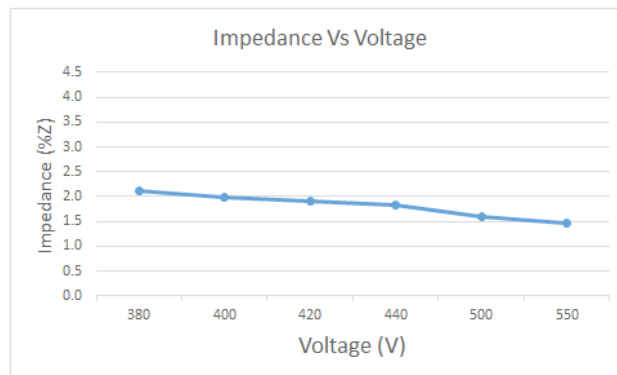


Without Line Reactor



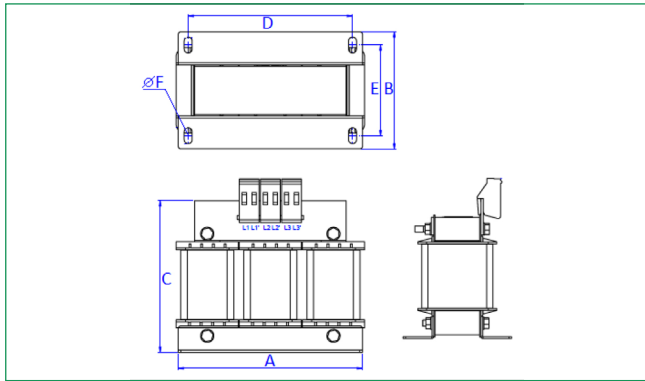
With Line Reactor

Impedance versus Voltage Plot

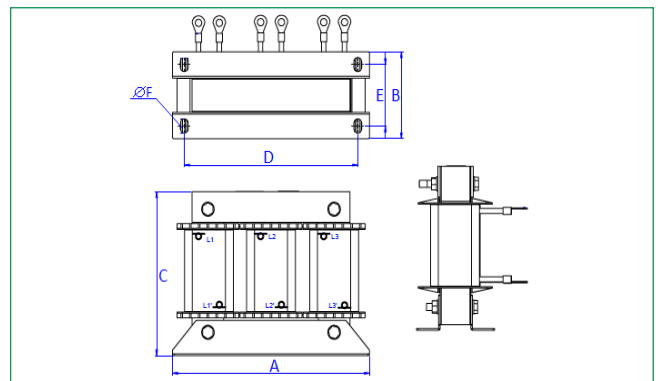


Mechanical Drawing:

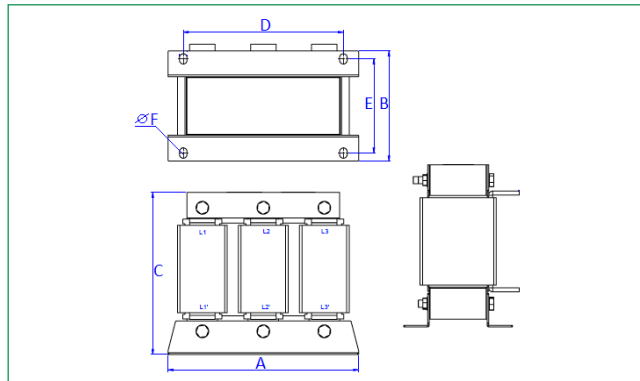
1.76A to 30A



32A to 90A



100A to 1010A



Mechanical dimensions:

Model Number	Part Number	A	B	C	D	E	F
PQR-23400-1.8-C3	E109474-1	124	67.50	118	109	47.50	12x6
PQR-23400-2.4-C3	E109475-1	124	67.50	118	109	47.50	12x6
PQR-23400-3.5-C3	E109476-1	124	67.50	118	109	47.50	12x6
PQR-23400-5-C3	E109477-1	124	67.50	118	109	47.50	12x6
PQR-23400-6-C3	E109478-1	139	69.85	114.55	124	49.85	12x6
PQR-23400-6.5-C3	E109479-1	139	69.85	114.55	124	49.85	12x6
PQR-23400-9-C3	E109480-1	139	69.85	114.55	124	49.85	12x6
PQR-23400-10-C3	E109481-1	139	88.50	114.55	124	68.50	12x6
PQR-23400-12-C3	E109482-1	139	88.50	114.55	124	68.50	12x6
PQR-23400-13-C3	E109483-1	139	88.50	114.55	124	68.50	12x6
PQR-23400-15-C3	E109484-1	144	70.85	142.50	129	50.85	12x6
PQR-23400-16-C3	E109485-1	144	70.85	142.50	129	50.85	12x6
PQR-23400-18-C3	E109486-1	144	70.85	142.50	129	50.85	12x6
PQR-23400-20-C3	E109487-1	144	70.85	142.50	129	50.85	12x6
PQR-23400-24-C3	E109488-1	144	86	142.50	129	63	12x6
PQR-23400-25-C3	E109489-1	144	86	142.50	129	63	12x6
PQR-23400-26-C3	E109490-1	144	86	142.50	129	63	12x6
PQR-23400-30-C3	E109491-1	144	86	142.50	129	63	12x6
PQR-23400-32-L3	E109492-1	200	99.65	157	186	74.65	15x8.5
PQR-23400-35-L3	E109493-1	200	99.65	157	186	74.65	15x8.5
PQR-23400-40-L3	E109494-1	250	99	186.50	220	70	16x10
PQR-23400-45-L3	E109495-1	250	99	186.50	220	70	16x10
PQR-23400-48-L3	E109496-1	250	99	186.50	220	70	16x10
PQR-23400-55-L3	E109497-1	250	99	186.50	220	70	16x10
PQR-23400-59-L3	E109498-1	250	99	186.50	220	70	16x10

Model Number	Part Number	A	B	C	D	E	F
PQR-23400-65-L3	E109499-1	250	99	186.50	220	70	16x10
PQR-23400-70-L3	E109500-1	250	99	186.50	220	70	16x10
PQR-23400-72-L3	E109501-1	250	99	186.50	220	70	16x10
PQR-23400-75-L3	E109502-1	250	99	186.50	220	70	16x10
PQR-23400-80-L3	E109503-1	300	110	206	250	81	16x10
PQR-23400-85-L3	E109504-1	300	110	206	250	81	16x10
PQR-23400-90-L3	E109505-1	300	110	206	250	81	16x10
PQR-23400-100-B3	E109506-1	300	110	206	250	81	16x10
PQR-23400-110-B3	E109507-1	300	110	206	250	81	16x10
PQR-23400-115-B3	E109508-1	300	110	206	250	81	16x10
PQR-23400-120-B3	E109509-1	300	110	206	250	81	16x10
PQR-23400-125-B3	E109510-1	300	135.50	206	250	106	16x10
PQR-23400-130-B3	E109511-1	300	135.50	206	250	106	16x10
PQR-23400-145-B3	E109512-1	300	135.50	206	250	106	16x10
PQR-23400-160-B3	E109513-1	300	135.50	206	250	106	16x10
PQR-23400-180-B3	E109514-1	320	147.50	260	275	110.50	20x15
PQR-23400-200-B3	E109515-1	320	147.50	260	275	110.50	20x15
PQR-23400-215-B3	E109516-1	320	147.50	260	275	110.50	20x15
PQR-23400-220-B3	E109517-1	320	147.50	260	275	110.50	20x15
PQR-23400-260-B3	E109518-1	375	163.50	315	315	128.90	20x15
PQR-23400-300-B3	E109519-1	375	163.50	315	315	128.90	20x15
PQR-23400-320-B3	E109520-1	375	163.50	315	315	129	20x15
PQR-23400-400-B3	E109521-1	375	176	315	315	145	20x15
PQR-23400-510-B3	E109522-1	375	203	315	315	170.40	20x15
PQR-23400-570-B3	E109523-1	375	214	315	315	183	20x15
PQR-23400-600-B3	E109524-1	375	214	315	315	183	20x15
PQR-23400-645-B3	E109525-1	375	214	315	315	183	20x15
PQR-23400-700-B3	E109526-1	375	231	315	315	195	20x15
PQR-23400-750-B3	E109527-1	375	231	315	315	195	20x15
PQR-23400-800-B3	E109528-1	375	231	315	315	195	20x15
PQR-23400-850-B3	E109529-1	375	231	315	315	195	20x15
PQR-23400-900-B3	E109530-1	375	231	315	315	195	20x15
PQR-23400-1000-B3	E109531-1	375	231	315	315	195	20x15

Note: All dimensions are in mm. Tolerance Applicable (± 5 mm).