
Features:

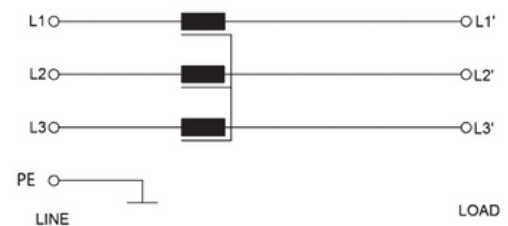
- Reduction of main harmonics
- Impedance at 4%
- Protection of motor drive electronics
- Limitations of inrush Currents
- Prevention from nuisance tripping caused by power line voltage spikes
- Reduce Power Distortion and Low Ripple
- Comply with Industry standards

Applications:

- Motor drives and Various adjustable speed drive systems, such as: Elevators, Robotics, and machinery
- Harmonics Reduction
- Process Automation Equipment

DATASHEET
**THREE PHASE AC LINE REACTOR-
PQR-4 Series**

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

Type Circuit Diagram:

Technical Specifications:

Maximum Continuous Operating Voltage	:3x380 to 480 VAC \pm 10 %
Operating Frequency	:50/60Hz
Current ratings	:1.76A to 1010A @ 45°C
Impedance	:4% at 400 VAC, 50 Hz at rated current
High Potential test voltage	:2000 VAC for 2 sec(L-G)
Overload Capability	:1.6 times of rated current for 1 Min/hr
Design Corresponding to	:EN 61558-2-20, EN 60076-6, UL 508
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	:9.2V (\pm 20%)

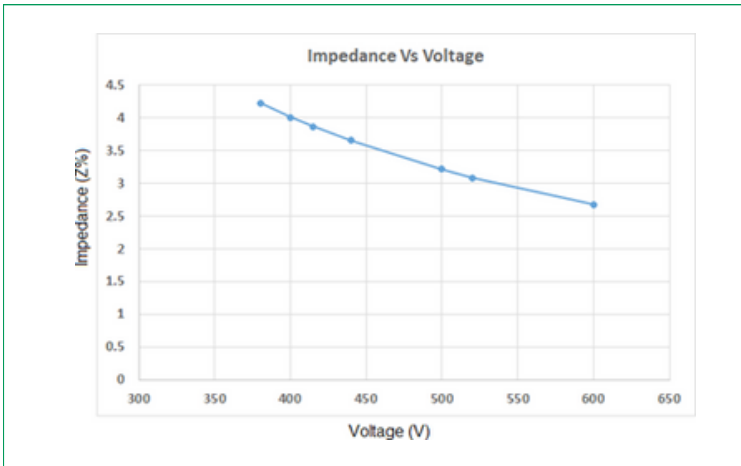
Ordering Information

Model Number	Part Number	Rated Current @ 45°C(A)	Rated Power@250V (KW)	Rated Power (HP)	Inductance (mH)	Termination	Min.Weight (Kgs)
PQR-43400-1.8-C3	E104070-1	1.76	1.46	1.96	16.7	Connector-4mm ²	1.4
PQR-43400-2.4-C3	E105057-1	2.41	2	2.69	12.23	Connector-4mm ²	1.4
PQR-43400-3.5-C3	E104074-1	3.53	2.93	3.93	8.34	Connector-4mm ²	1.6
PQR-43400-5-C3	E105058-1	5	4.16	5.57	5.88	Connector-4mm ²	1.6
PQR-43400-6-C3	E105059-1	6	4.99	6.69	4.9	Connector-4mm ²	1.7
PQR-43400-6.5-C3	E104075-1	6.42	5.34	7.15	4.6	Connector-4mm ²	1.7
PQR-43400-9-C3	E104112-1	8.82	7.33	9.83	3.34	Connector-4mm ²	2
PQR-43400-10-C3	E105060-1	10	8.31	11.14	2.94	Connector-4mm ²	3.3
PQR-43400-12-C3	E104117-1	12.03	10	13.41	2.45	Connector-4mm ²	3.3
PQR-43400-13-C3	E105061-1	13	10.81	14.49	2.27	Connector-4mm ²	3.3
PQR-43400-15-C3	E105062-1	15	12.47	16.72	1.96	Connector-4mm ²	3.4
PQR-43400-16-C3	E105063-1	16	13.3	17.83	1.84	Connector-4mm ²	3.4
PQR-43400-18-C3	E104118-1	17.64	14.67	19.66	1.67	Connector-4mm ²	3.4
PQR-43400-20-C3	E105064-1	20	16.63	22.29	1.47	Connector-4mm ²	3.5
PQR-43400-24-C3	E104156-1	24.06	20	26.81	1.22	Connector-4mm ²	4.6
PQR-43400-25-C3	E105065-1	25	20.78	27.86	1.18	Connector-4mm ²	4.6
PQR-43400-26-C3	E105066-1	26	21.62	28.98	1.13	Connector-4mm ²	4.8
PQR-43400-30-C3	E104157-1	29.67	24.67	33.07	0.99	Connector-4mm ²	4.8
PQR-43400-32-L3	E105067-1	32	26.6	35.66	0.92	Cable Lugs-16mm ²	8.1
PQR-43400-35-L3	E104158-1	35.28	29.33	39.32	0.83	Cable Lugs-16mm ²	8.1
PQR-43400-40-L3	E105068-1	40	33.26	44.58	0.74	Cable Lugs-35mm ²	10.3
PQR-43400-45-L3	E105069-1	45	37.41	50.15	0.65	Cable Lugs-35mm ²	10.3
PQR-43400-48-L3	E104159-1	48.11	40	53.62	0.61	Cable Lugs-35mm ²	10.3
PQR-43400-55-L3	E105070-1	55	45.73	61.3	0.53	Cable Lugs-35mm ²	10.3
PQR-43400-59-L3	E104160-1	59.34	49.33	66.13	0.5	Cable Lugs-35mm ²	10.5
PQR-43400-65-L3	E105071-1	65	54.04	72.44	0.45	Cable Lugs-35mm ²	10.5
PQR-43400-70-L3	E105072-1	70	58.2	78.01	0.42	Cable Lugs-35mm ²	11
PQR-43400-72-L3	E104161-1	72.17	60	80.43	0.41	Cable Lugs-35mm ²	11
PQR-43400-75-L3	E105073-1	75	62.35	83.58	0.41	Cable Lugs-35mm ²	11
PQR-43400-80-L3	E105074-1	80	66.51	89.16	0.37	Cable Lugs-35mm ²	15
PQR-43400-85-L3	E105075-1	85	70.67	94.73	0.35	Cable Lugs-35mm ²	15
PQR-43400-90-L3	E104163-1	88.21	73.34	98.31	0.33	Cable Lugs-35mm ²	15
PQR-43400-100-B3	E105076-1	100	83.14	111.45	0.29	Busbar-20x4	15.5
PQR-43400-110-B3	E105077-1	110	91.45	122.59	0.27	Busbar-20x4	15.5
PQR-43400-115-B3	E105078-1	115	95.61	128.16	0.26	Busbar-20x4	15.5
PQR-43400-120-B3	E104164-1	120.28	100	134.05	0.24	Busbar-20x4	15.5
PQR-43400-125-B3	E105079-1	125	103.92	139.31	0.24	Busbar-25x4	23
PQR-43400-130-B3	E105080-1	130	108.08	144.88	0.23	Busbar-25x4	23
PQR-43400-145-B3	E104165-1	144.34	120	160.86	0.2	Busbar-25x4	23
PQR-43400-160-B3	E105081-1	160	133.02	178.31	0.18	Busbar-25x4	23
PQR-43400-180-B3	E104166-1	176.41	146.66	196.6	0.17	Busbar-25x4	25
PQR-43400-200-B3	E105082-1	200	166.28	222.89	0.15	Busbar-30x5	25
PQR-43400-215-B3	E104171-1	211.7	176	235.93	0.14	Busbar-30x5	25
PQR-43400-220-B3	E105083-1	220	182.9	245.18	0.13	Busbar-40x5	25

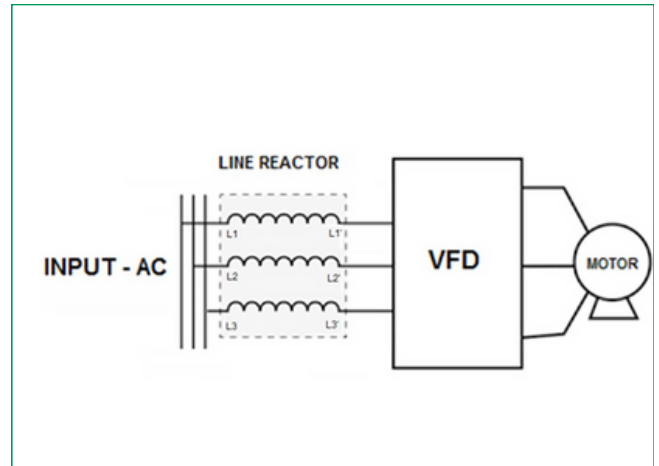
Note: Rated Power (KW) is calculated for rated current, 250VAC and Cos ϕ = 0.9

Model Number	Part Number	Rated Current@ 45°C (A)	Rated Power@250V (KW)	Rated Power (HP)	Inductance (mH)	Termination	Min.Weight (Kgs)
PQR-43400-260-B3	E104173-1	256.6	213.33	285.97	0.11	Busbar-40x5	40
PQR-43400-300-B3	E105084-1	300	249.42	334.34	0.1	Busbar-40x5	40
PQR-43400-320-B3	E104175-1	320.75	266.67	357.46	0.09	Busbar-40x5	40
PQR-43400-400-B3	E104178-1	400.94	333.34	446.83	0.07	Busbar-50x5	52
PQR-43400-510-B3	E104180-1	505.18	420	563	0.06	Busbar-50x5	66
PQR-43400-570-B3	E104185-1	569	473.06	634.13	0.05	Busbar-50x8	76
PQR-43400-600-B3	E105085-1	600	498.83	668.67	0.05	Busbar-50x8	78
PQR-43400-645-B3	E104187-1	645	533.75	715.48	0.05	Busbar-50x8	83
PQR-43400-700-B3	E105086-1	700	581.97	780.12	0.04	Busbar-50x8	83
PQR-43400-750-B3	E105087-1	750	623.54	835.84	0.04	Busbar-50x8	87
PQR-43400-800-B3	E104192-1	802	666.77	893.79	0.04	Busbar-50x8	87
PQR-43400-850-B3	E105088-1	850	706.68	947.29	0.03	Busbar-50x8	87
PQR-43400-900-B3	E105089-1	900	748.25	1003.01	0.03	Busbar-50x8	92
PQR-43400-1000-B3	E104194-1	1010	839.7	1125.6	0.03	Busbar-50x8	92

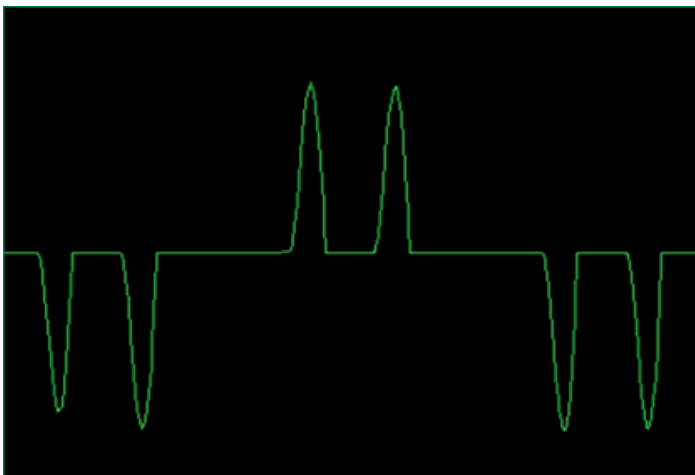
Impedance versus Voltage Plot



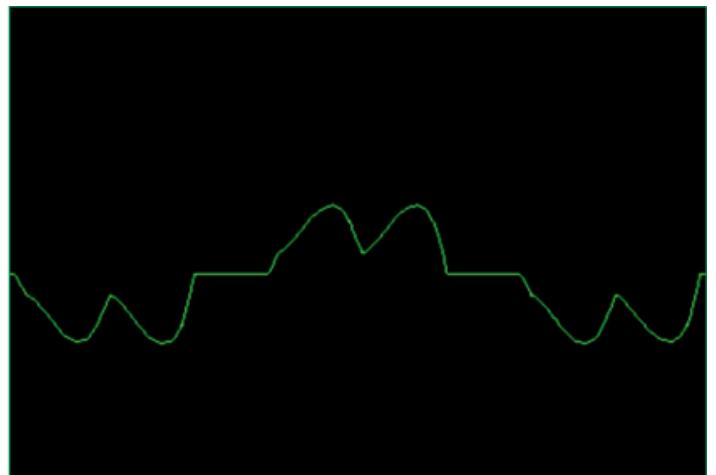
Connection Diagram



Advantages of having Line Reactor

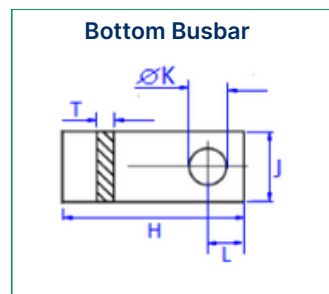
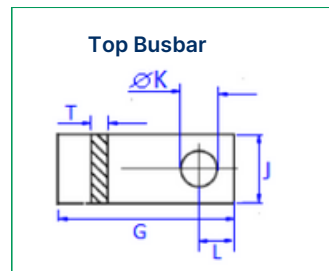
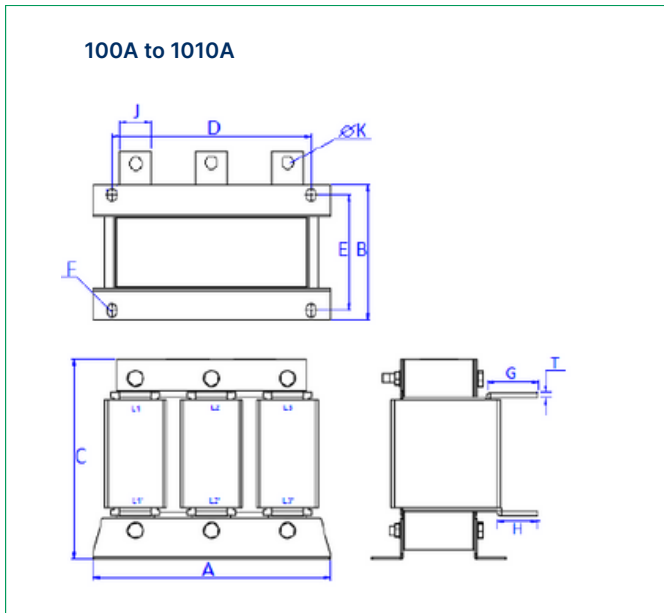
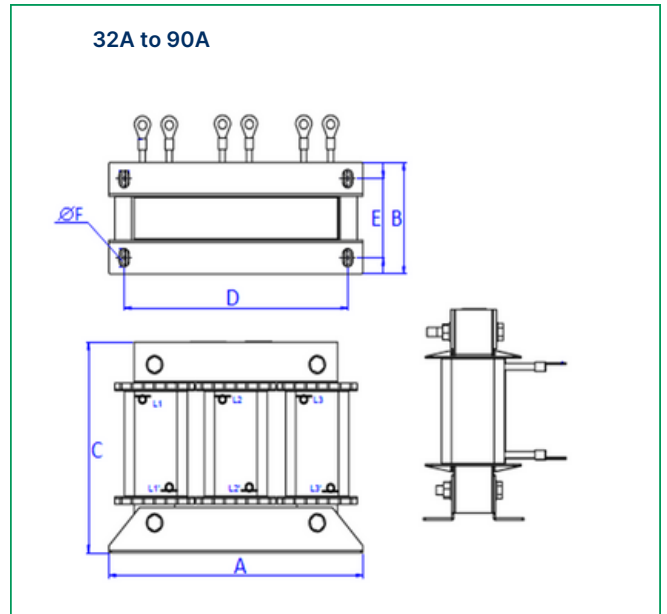
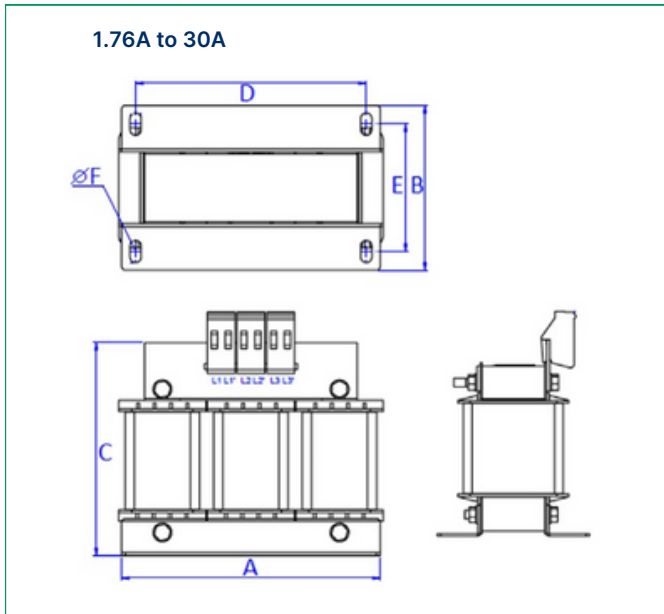


Without Line Reactor



With Line Reactor

Mechanical Dimensions



Termination Details

Connector				
Rated Current (A)	mm ²	Wire Range	Stripping Length (mm)	Tightening Torque (Nm)
1.76A to 29.67A	4	22 to 10AWG	8	0.6 to 0.8

Cable Lugs			
Rated Current (A)	mm ²	Hole Ø (mm)	Termination Lead Length (mm)
32A & 35.28A	16	8.2	100
40A to 88.21A	35	10.2	100

Mechanical dimensions:

Model Number	A	B	C	D	E	F	G	H	J	T	L	ØK
PQR-43400-1.8-C3	124	67.5	118	109	47.5	12x6	-	-	-	-	-	-
PQR-43400-2.4-C3	124	67.5	118	109	47.5	12x6	-	-	-	-	-	-
PQR-43400-3.5-C3	124	67.5	118	109	47.5	12x6	-	-	-	-	-	-
PQR-43400-5-C3	124	67.5	118	109	47.5	12x6	-	-	-	-	-	-
PQR-43400-6-C3	139	69.85	114.55	124	49.85	12x6	-	-	-	-	-	-
PQR-43400-6.5-C3	139	69.85	114.55	124	49.85	12x6	-	-	-	-	-	-
PQR-43400-9-C3	139	69.85	114.55	124	49.85	12x6	-	-	-	-	-	-
PQR-43400-10-C3	139	88.5	114.55	124	68.5	12x6	-	-	-	-	-	-
PQR-43400-12-C3	139	88.5	114.55	124	68.5	12x6	-	-	-	-	-	-
PQR-43400-13-C3	139	88.5	114.55	124	68.5	12x6	-	-	-	-	-	-
PQR-43400-15-C3	144	70.85	142.5	129	50.85	12x6	-	-	-	-	-	-
PQR-43400-16-C3	144	70.85	142.5	129	50.85	12x6	-	-	-	-	-	-
PQR-43400-18-C3	144	70.85	142.5	129	50.85	12x6	-	-	-	-	-	-
PQR-43400-20-C3	144	70.85	142.5	129	50.85	12x6	-	-	-	-	-	-
PQR-43400-24-C3	144	86	142.5	129	63	12x6	-	-	-	-	-	-
PQR-43400-25-C3	144	86	142.5	129	63	12x6	-	-	-	-	-	-
PQR-43400-26-C3	144	86	142.5	129	63	12x6	-	-	-	-	-	-
PQR-43400-30-C3	144	86	142.5	129	63	12x6	-	-	-	-	-	-
PQR-43400-32-L3	200	99.65	157	186	74.65	15x8.5	-	-	-	-	-	-
PQR-43400-35-L3	200	99.65	157	186	74.65	15x8.5	-	-	-	-	-	-
PQR-43400-40-L3	250	99	186.5	220	70	16x10	-	-	-	-	-	-
PQR-43400-45-L3	250	99	186.5	220	70	16x10	-	-	-	-	-	-
PQR-43400-48-L3	250	99	186.5	220	70	16x10	-	-	-	-	-	-
PQR-43400-55-L3	250	99	186.5	220	70	16x10	-	-	-	-	-	-
PQR-43400-59-L3	250	99	186.5	220	70	16x10	-	-	-	-	-	-
PQR-43400-65-L3	250	99	186.5	220	70	16x10	-	-	-	-	-	-
PQR-43400-70-L3	250	99	186.5	220	70	16x10	-	-	-	-	-	-
PQR-43400-72-L3	250	99	186.5	220	70	16x10	-	-	-	-	-	-
PQR-43400-75-L3	250	99	186.5	220	70	16x10	-	-	-	-	-	-
PQR-43400-80-L3	300	110	206	250	81	16x10	-	-	-	-	-	-
PQR-43400-85-L3	300	110	206	250	81	16x10	-	-	-	-	-	-
PQR-43400-90-L3	300	110	206	250	81	16x10	-	-	-	-	-	-
PQR-43400-100-B3	300	110	206	250	81	16x10	60	40	20	4	15	8
PQR-43400-110-B3	300	110	206	250	81	16x10	60	40	20	4	15	8
PQR-43400-115-B3	300	110	206	250	81	16x10	60	40	20	4	15	8
PQR-43400-120-B3	300	110	206	250	81	16x10	60	40	20	4	15	8
PQR-43400-125-B3	300	135.5	206	250	106	16x10	50	50	25	4	15	10
PQR-43400-130-B3	300	135.5	206	250	106	16x10	50	50	25	4	15	10
PQR-43400-145-B3	300	135.5	206	250	106	16x10	50	50	25	4	15	10
PQR-43400-160-B3	300	135.5	206	250	106	16x10	50	50	25	4	15	10
PQR-43400-180-B3	320	147.5	260	275	110.5	20x15	50	50	25	4	15	10
PQR-43400-200-B3	320	147.5	260	275	110.5	20x15	50	50	30	5	15	10
PQR-43400-215-B3	320	147.5	260	275	110.5	20x15	50	50	30	5	15	10
PQR-43400-220-B3	320	147.5	260	275	110.5	20x15	60	60	40	5	20	12
PQR-43400-260-B3	375	163.5	315	315	128.9	20x15	60	60	40	5	20	12
PQR-43400-300-B3	375	163.5	315	315	128.9	20x15	60	60	40	5	20	12
PQR-43400-320-B3	375	163.5	315	315	129	20x15	60	60	40	5	20	12
PQR-43400-400-B3	375	176	315	315	145	20x15	60	60	50	5	20	12

Model Number	A	B	C	D	E	F	G	H	J	T	L	ØK
PQR-43400-510-B3	375	203	315	315	170.4	20x15	60	60	50	5	20	12
PQR-43400-570-B3	375	214	315	315	183	20x15	60	60	50	8	20	12
PQR-43400-600-B3	375	214	315	315	183	20x15	60	60	50	8	20	12
PQR-43400-645-B3	375	214	315	315	183	20x15	60	60	50	8	20	12
PQR-43400-700-B3	375	231	315	315	195	20x15	60	60	50	8	20	12
PQR-43400-750-B3	375	231	315	315	195	20x15	60	60	50	8	20	12
PQR-43400-800-B3	375	231	315	315	195	20x15	60	60	50	8	20	12
PQR-43400-850-B3	375	231	315	315	195	20x15	60	60	50	8	20	12
PQR-43400-900-B3	375	231	315	315	195	20x15	60	60	50	8	20	12
PQR-43400-1000-B3	375	231	315	315	195	20x15	60	60	50	8	20	12

Note: All dimensions are in mm. Tolerance Applicable for A,B,C,D,E,G,H (± 5 mm).