


DATASHEET

THREE PHASE AC LINE REACTOR - PQR SERIES

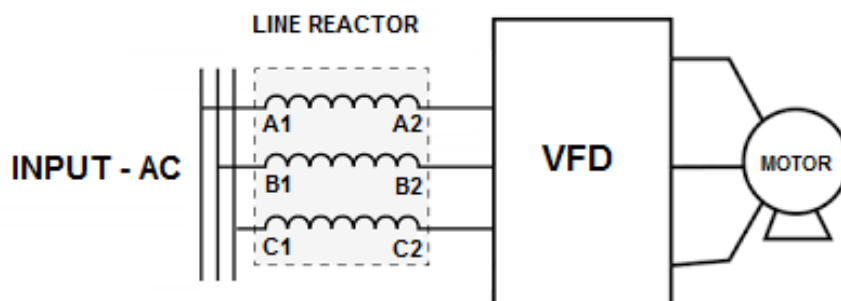
Description

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

Maximum Continuous Operating Voltage	400VAC
Operating Frequency	50/60 Hz
Current ratings	2.4A to 1000A
Impedance	4%, 3% & 2% of 400VAC at rated current, 50Hz
High Potential test voltage	2000VAC
Overload Capability	1.6 times of rated current for 1 Min/hr
Design Corresponding to	EN 61558-2-20, EN 60076-6, UL61800-5-1
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 F

Connection Diagram



Features

- Reduction of main harmonics
- Impedance at 4%, 3% & 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

Technical Data

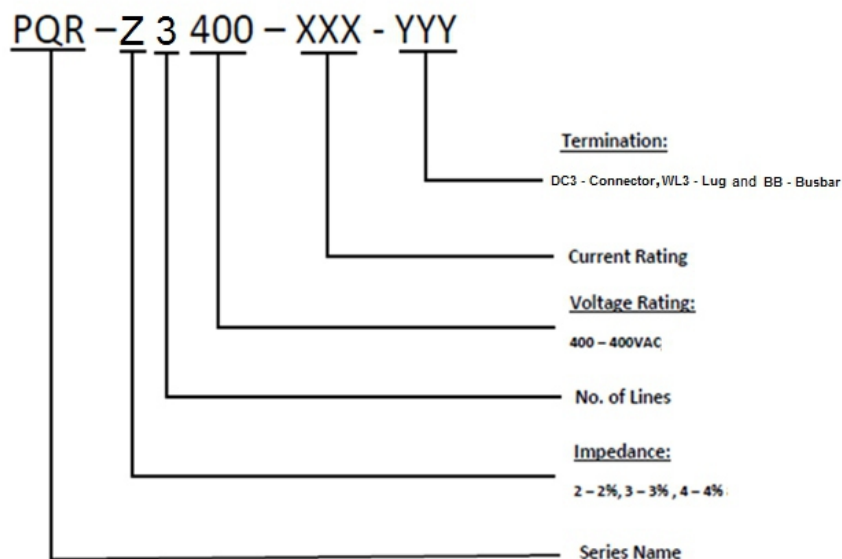
Part Number	Rated Current (Amps)	Rated Power @400V (KW)	Rated Power (HP)	Inductance @4% Imp(mH)	Inductance @3% Imp(mH)	Inductance @2% Imp(mH)
PQR-Z3400-2.41-DC3	2.41	1.5	2.01	12.2	9.15	6.1
PQR-Z3400-3.5-DC3	3.53	2.2	2.95	8.3 3	6.25	4.16
PQR-Z3400-6.5-DC3	6.42	4	5.36	4.6	3.44	2.29
PQR-Z3400-9-DC3	8.82	5.5	7.38	3.34	2.5	1.67
PQR-Z3400-12-DC3	12.03	7.5	10.06	2.45	1.83	1.22
PQR-Z3400-18-DC3	17.64	11	14.75	1.67	1.25	0.83
PQR-Z3400-24-DC3	24.06	15	20.12	1.22	0.92	0.61
PQR-Z3400-30-DC3	29.67	18.5	24.81	0.99	0.74	0.5
PQR-Z3400-35-WL3	35.28	22	29.5	0.83	0.63	0.42
PQR-Z3400-48-WL3	48.11	30	40.23	0.61	0.46	0.31
PQR-Z3400-59-WL3	59.34	37	49.62	0.5	0.37	0.25
PQR-Z3400-72-WL3	72.17	45	60.35	0.41	0.31	0.20
PQR-Z3400-90-WL3	88.21	55	73.76	0.33	0.25	0.17
PQR-Z3400-120-BB3	120	75	100.58	0.24	0.18	0.12
PQR-Z3400-145-BB3	144	90	120.69	0.20	0.15	0.10
PQR-Z3400-180-BB3	176.4	110	147.51	0.17	0.13	0.08
PQR-Z3400-215-BB3	212	132	177.01	0.14	0.104	0.07
PQR-Z3400-260-BB3	257	160	214.56	0.11	0.086	0.06
PQR-Z3400-320-BB3	320	200	268.2	0.09	0.069	0.05
PQR-Z3400-400-BB3	400	250	335.25	0.07	0.055	0.04
PQR-Z3400-510-BB3	505	315	422.42	0.06	0.044	0.03
PQR-Z3400-800-BB3	802	498.8	668.67	0.04	0.03	0.02
PQR-Z3400-1000-BB3	1000	623.5	835.84	0.03	0.02	0.01

Note:

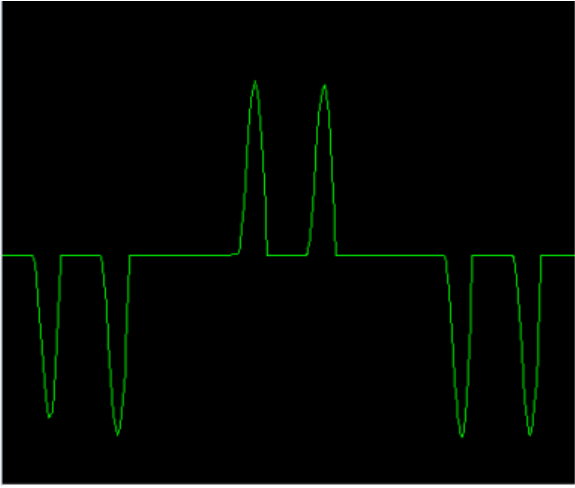
* In above Part Number, "Z" represent% Impedance. Kindly replace according to % Impedance required. Replace Z by 4 for 4%, 3 for 3%, and 2 for 2%.

** Rated Power (KW) is calculated for rated current, 400VAC and Cos phi = 0.9

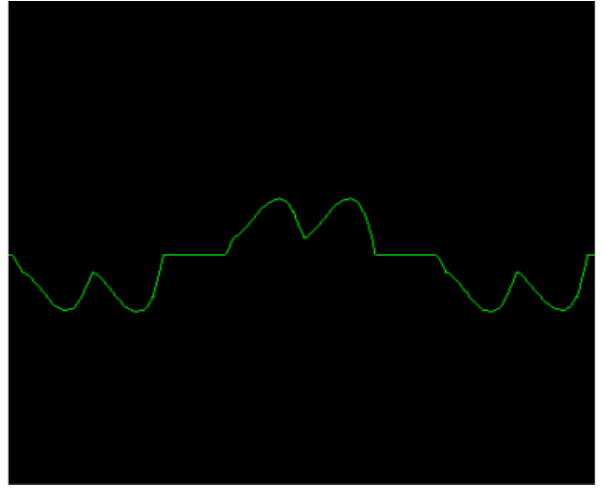
How to Order



Advantages of having Line Reactor

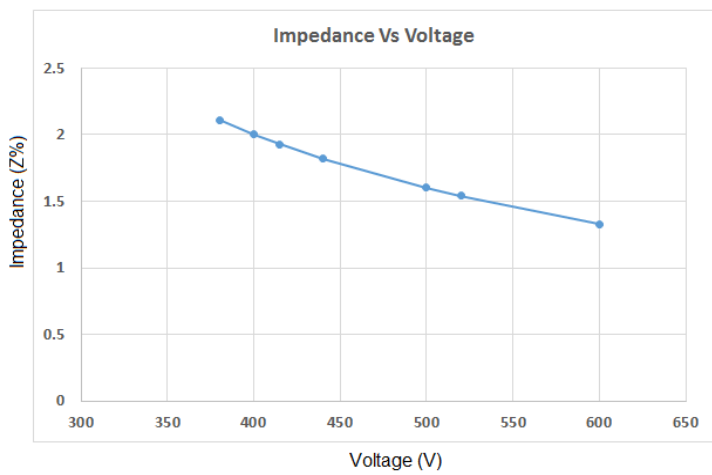
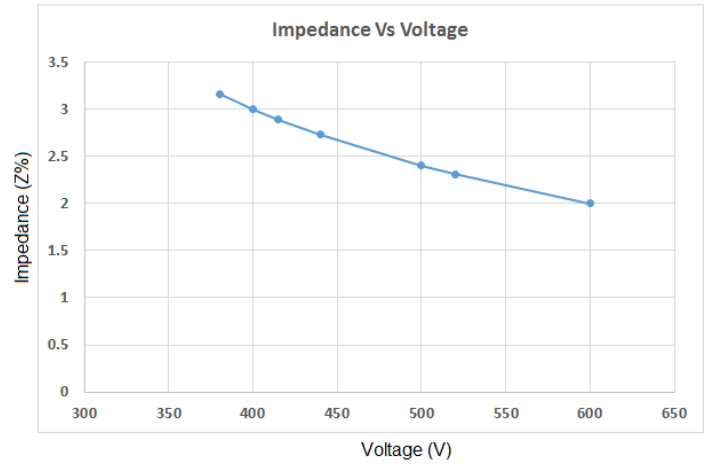
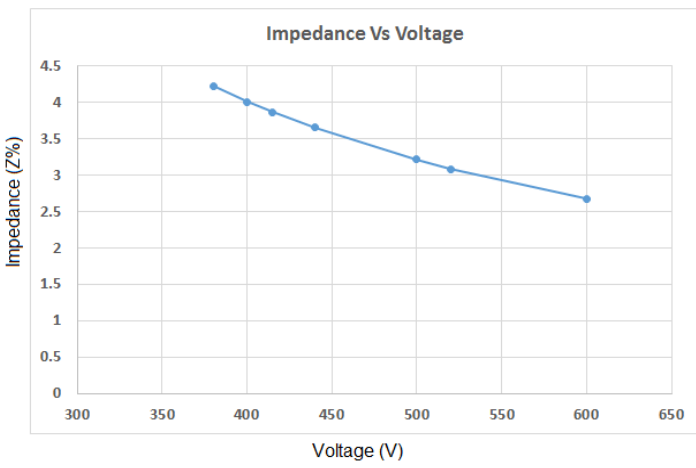


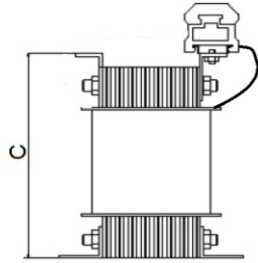
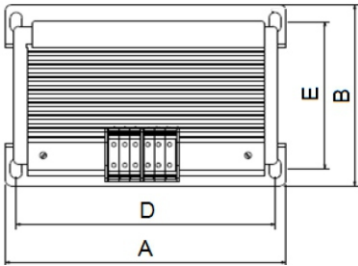
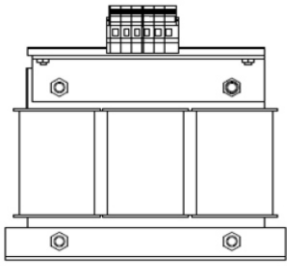
Without Line Reactor



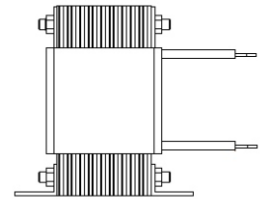
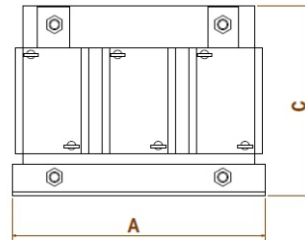
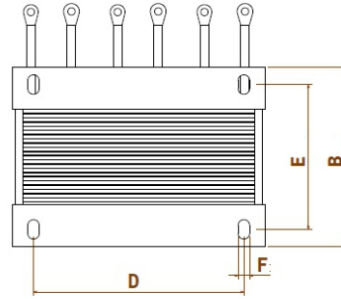
With Line Reactor

Impedance Versus Voltage Plot

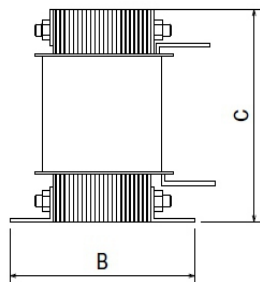
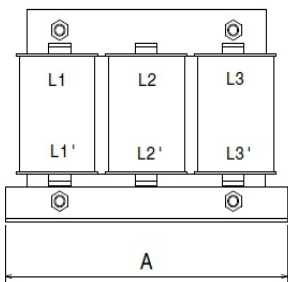
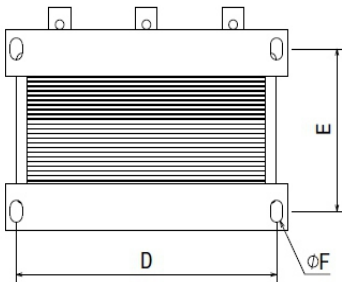




2.4A-30A



35A-90A



120A-1000A

Mechanical Dimensions

Three Phase Line Reactor - 4% Impedance at 400VAC

Part Number	A	B	C	D	E	F
PQR-43400-2.41-DC3	124	70	110	109	50	12x6
PQR-43400-3.5-DC3	124	70	110	109	50	12x6
PQR-43400-6.5-DC3	140	70	110	124	50	12x6
PQR-43400-9-DC3	140	75	110	124	55	12x6
PQR-43400-12-DC3	140	75	110	124	55	12x6
PQR-43400-18-DC3	140	90	110	124	70	12x6
PQR-43400-24-DC3	140	90	110	124	70	12x6
PQR-43400-30-DC3	145	70	135	129	50	12x6
PQR-43400-35-WL3	145	96	135	129	76	12x6
PQR-43400-48-WL3	207	90	145	192	70	15x8.5
PQR-43400-59-WL3	200	101	165	186	80	15x8.5
PQR-43400-72-WL3	250	100	190	150	70	10x16
PQR-43400-90-WL3	250	111	190	150	81	10x16
PQR-43400-120-BB3	300	111	200	250	81	10x16
PQR-43400-145-BB3	300	136	200	250	106	10x16
PQR-43400-180-BB3	320	160	255	275	120	12
PQR-43400-215-BB3	360	160	305	315	130	12
PQR-43400-260-BB3	360	160	305	315	130	12
PQR-43400-320-BB3	360	165	305	315	135	15
PQR-43400-400-BB3	360	176	305	315	146	15
PQR-43400-510-BB3	360	201	305	315	171	15
PQR-43400-800-BB3	360	235	305	315	201	15
PQR-43400-1000-BB3	360	235	305	315	201	15

Three Phase Line Reactor - 3% Impedance at 400VAC

Part Number	A	B	C	D	E	F
PQR-33400-2.41-DC3	124	70	110	109	50	12x6
PQR-33400-3.5-DC3	124	70	110	109	50	12x6
PQR-33400-6.5-DC3	140	70	110	124	50	12x6
PQR-33400-9-DC3	140	75	110	124	55	12x6
PQR-33400-12-DC3	140	75	110	124	55	12x6
PQR-33400-18-DC3	140	90	110	124	70	12x6
PQR-33400-24-DC3	140	90	110	124	70	12x6
PQR-33400-30-DC3	140	90	110	124	70	12x6
PQR-33400-35-WL3	145	84	135	129	64	12x6
PQR-33400-48-WL3	207	75	145	192	55	15x8.5
PQR-33400-59-WL3	200	100	165	186	80	15x8.5
PQR-33400-72-WL3	250	100	190	150	70	10x16

PQR-33400-90-WL3	250	100	190	150	70	10x16
PQR-33400-120-BB3	300	111	200	250	81	10x16
PQR-33400-145-BB3	300	136	200	250	106	10x16
PQR-33400-180-BB3	320	160	255	275	120	12
PQR-33400-215-BB3	360	160	305	315	130	12
PQR-33400-260-BB3	360	160	305	315	130	12
PQR-33400-320-BB3	360	165	305	315	135	15
PQR-33400-400-BB3	360	176	305	315	146	15
PQR-33400-510-BB3	360	201	305	315	171	15
PQR-33400-800-BB3	360	235	305	315	201	15
PQR-33400-1000-BB3	360	235	305	315	201	15

Single Phase Line Reactor - 2% Impedance at 400VAC

Part Number	A	B	C	D	E	F
PQR-23400-2.41-DC3	124	70	110	109	50	12x6
PQR-23400-3.5-DC3	124	70	110	109	50	12x6
PQR-23400-6.5-DC3	124	70	110	109	50	12x6
PQR-23400-9-DC3	140	70	110	124	50	12x6
PQR-23400-12-DC3	140	70	110	124	50	12x6
PQR-23400-18-DC3	140	75	110	124	55	12x6
PQR-23400-24-DC3	140	75	110	124	55	12x6
PQR-23400-30-DC3	140	90	110	124	70	12x6
PQR-23400-35-WL3	145	70	135	129	50	12x6
PQR-23400-48-WL3	207	90	145	192	70	15x8.5
PQR-23400-59-WL3	200	80	165	186	60	15x8.5
PQR-23400-72-WL3	250	120	190	210	85	12
PQR-23400-90-WL3	250	100	190	150	70	10x16
PQR-23400-120-BB3	300	98	200	250	68	10x16
PQR-23400-145-BB3	300	111	200	250	81	10x16
PQR-23400-180-BB3	320	160	255	275	120	12
PQR-23400-215-BB3	360	160	305	315	130	12
PQR-23400-260-BB3	360	160	305	315	130	12
PQR-23400-320-BB3	360	165	305	315	135	15
PQR-23400-400-BB3	360	176	305	315	146	15
PQR-23400-510-BB3	360	201	305	315	171	15
PQR-23400-800-BB3	360	235	305	315	201	15
PQR-23400-1000-BB3	360	235	305	315	201	15

Note:

- * All dimension are in mm. Tolerance are applicable.
- ** Above drawings/dimensions provided are approximate and for reference only and subject to change without notice. Kindly contact factory to confirm the specifications.