



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.

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
- ▶ Improvement of true power factor
- ▶ Reduce Power Distortion and Low Ripple
- ▶ Comply with Industry standards



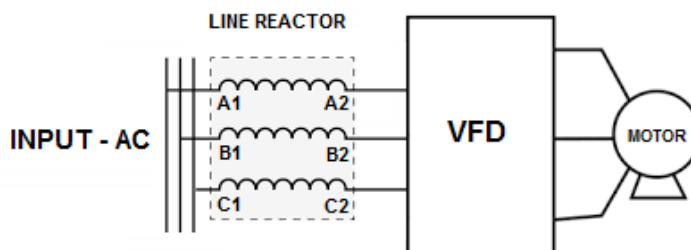
Applications

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

Technical Specifications

Maximum Continuous Operating Voltage	: 400VAC
Operating Frequency	: 50/60Hz
Current ratings	: 6A to 500A
Impedance	: 4% of rated voltage at rated current
High Potential test voltage	: 2000 VAC
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
Voltage Drop	: 9.2 Vac at each Line

Connection Diagram

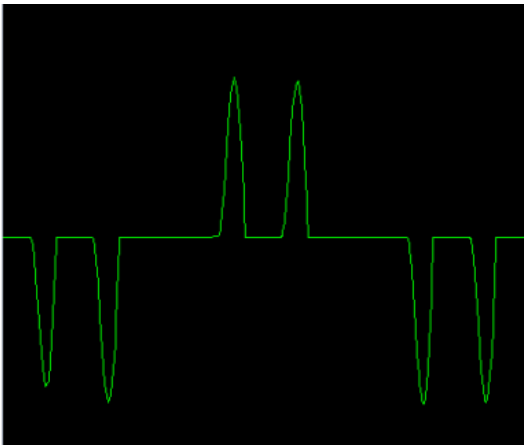


Technical Data

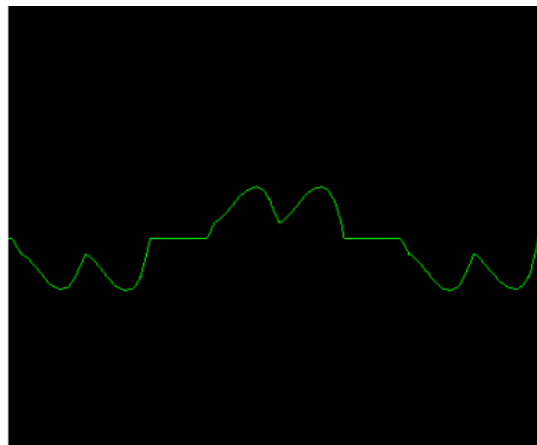
Part Number	Rated Current (Amps)	Rated Power @400V (KW)	Inductance (mH)	Termination
PQR-3000644900	6	3.7	4.9	Connectors
PQR-3001042900	10	6.2	2.9	Connectors
PQR-3001641830	16	10	1.83	Connectors
PQR-3002041470	20	12.4	1.47	Connectors
PQR-3002541170	25	16	1.17	Connectors
PQR-3003040980	30	18.7	0.98	Cable Lugs
PQR-3004040730	40	25	0.73	Cable Lugs
PQR-3005040580	50	31	0.58	Cable Lugs
PQR-3006040490	60	37	0.49	Cable Lugs
PQR-3007540390	75	47	0.39	Cable Lugs
PQR-3010040290	100	62	0.29	Cable Lugs
PQR-3021040140	210	75.6	0.14	Bus bar
PQR-3032040092	320	115.2	0.092	Bus Bar
PQR-3040040073	400	144	0.0735	Bus Bar
PQR-3050040058	500	180	0.0588	Bus Bar

***Note :** Rated Power is calculated for rated current , 400VAC and Cos phi = 0.9

Advantages of having Line Reactor

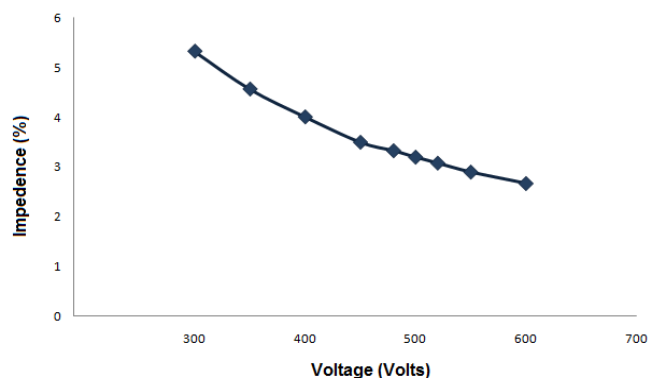


Without Line Reactor

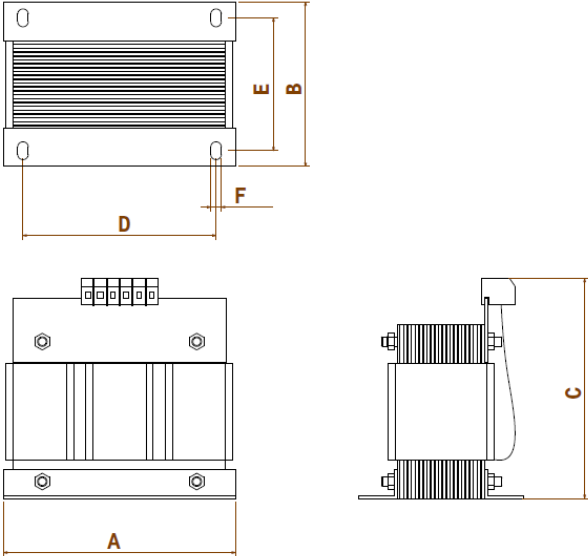
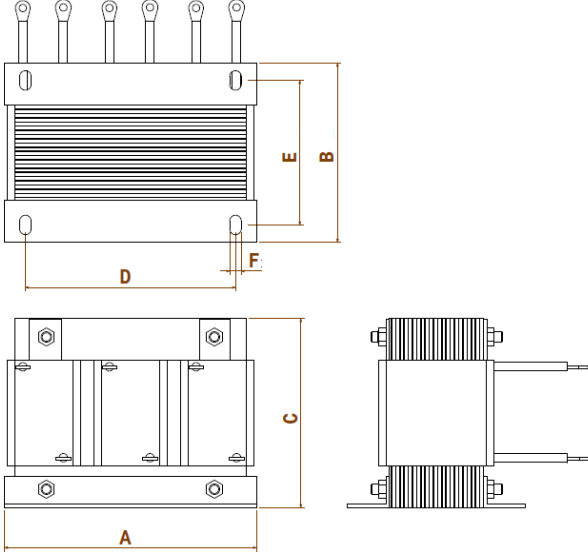
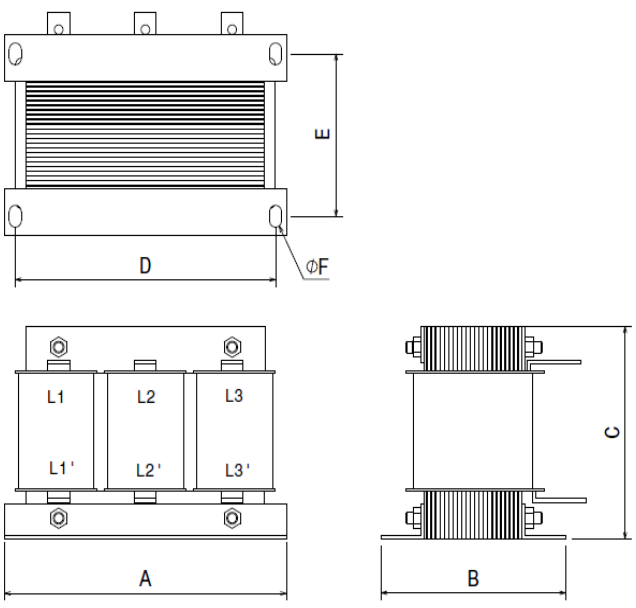


With Line Reactor

Impedance versus Voltage Plot



Mechanical Drawing

6A to 25A	30A to 100A
	
<p data-bbox="108 974 287 1008">210 to 500A</p> 	

Mechanical Dimensions

Part Number	A(±2)	B(±5)	C(±5)	D(±2)	E(±5)	F(±0.25)
PQR-3000644900	140	80	130	124	60	12x6
PQR-3001042900	145	75	155	129	55	12x6
PQR-3001641830	145	85	155	129	65	12x6
PQR-3002041470	145	85	155	129	65	12x6
PQR-3002541170	207	80	127	192	80	15x8.5
PQR-3003040980	207	80	127	192	80	15x8.5
PQR-3004040730	207	120	127	192	97	15x8.5
PQR-3005040580	250	132	215	230	110	12
PQR-3006040490	250	145	215	230	123	12
PQR-3007540390	300	136	200	265	85	12
PQR-3010040290	300	136	200	265	85	12
PQR-3021040140	360	156	305	320	126	12
PQR-3032040092	360	200	350	320	152	15
PQR-3040040073	400	200	410	380	150	15
PQR-3050040058	400	260	450	380	205	15

**All dimensions are in mm*