

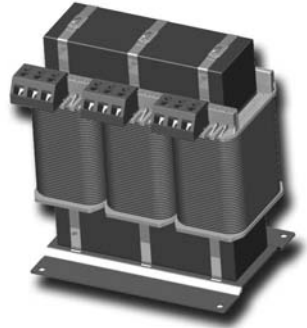
# AIC SERIES

## High Energy Storage Chokes for Inverter Applications

### Features

Series main characteristics are:

- High efficiency (>99%) due to very low losses design.
- Very good inductance stability vs. temperature.
- Wide inductance range (values of inductance up to 6mH).
- High storage currents (up to 150 A).
- High current density.
- Only one component for 3 phase: Triphasic topology.
- Lower size in comparison with other chokes.
- Operating frequency up to 25kHz.
- Wide operating temperature range.



### Applications

- Input and output chokes for renewable inverter applications
  - Solar
  - Wind
  - Fuel-cells
- Chokes for welding equipments.
- Input and output chokes for UPS.

PREMO introduces a new high storage mono-phase and three-phase AC chokes standard series for renewable energies, offering a wide range of inductances and Power (from 2,5 up to 100kVA).

AIC series is manufactured with new magnetic material. This new alloy has a balanced performance, combining a high flux density with low coercitivity and power losses over a broad range of frequencies making them an ideal solution. This combination of low losses and high saturation flux density provides size reduction and increasingly energy efficiency.

# AIC SERIES

## High Energy Storage Chokes for Inverter Applications

### Product list

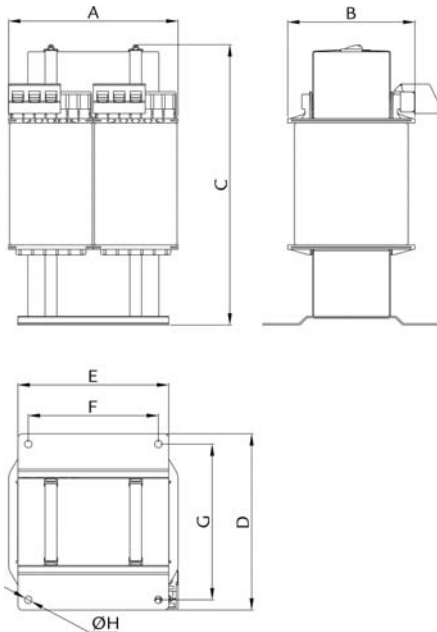
Part Number	L <sup>(2)</sup>	Current (A)	Power (kVA)	Fundamental Frequency (Hz)	Ripple Frequency (kHz)	Ripple 15% (Apeak)	Total Losses (W) MAX.	RDC <sup>(1)</sup> (mΩ)	ΔT (°C)	η (%)	Weight (Kg)
AIC-2P-300-12	3 mH	12,5	2,5	50 / 60	20	2	25	32	45	99,07	2,1
AIC-2P-600-12	6 mH	12,5	2,5	50 / 60	20	2	30	27	45	98,80	3,6
AIC-2P-150-23	1,5mH	23	5	50 / 60	20	3	25	12	45	99,50	2,9
AIC-2P-250-23	2,5mH	23	5	50 / 60	20	3	30	12	45	99,41	4,1
AIC-2P-300-23	3 mH	23	5	50 / 60	20	3	27,5	12	45	99,47	3,7
AIC-3P-150-15	1,5 mH	15	10	50 / 60	15	2	30	27	40	99,71	3,4
AIC-3P-200-15	2 mH	15	10	50 / 60	15	2	35	22	40	99,67	5
AIC-3P-100-23	1 mH	23	15	50 / 60	15	3	37,5	12	40	99,76	5,2
AIC-3P-200-23	2 mH	23	15	50 / 60	15	3	60	19	40	99,60	8,4
AIC-3P-075-30	750 μH	30	20	50 / 60	15	4	40	6,5	45	99,80	6,3
AIC-3P-150-30	1,5 mH	30	20	50 / 60	15	4	70	10	45	99,66	9,7
AIC-3P-075-36	750 μH	36	25	50 / 60	15	5	67,5	9	45	99,74	7,5
AIC-3P-150-36	1,5 mH	36	25	50 / 60	15	5	110	12	45	99,56	16,2
AIC-3P-032-75	325 μH	75	50	50 / 60	10	11	115	4,5	50	99,77	14,2
AIC-3P-075-75	750 μH	75	50	50 / 60	10	11	160	6	50	99,68	23,7
AIC-3P-025-150	250 μH	150	100	50 / 60	5	23	220	2,5	50	99,79	34,9
AIC-3P-050-150	500 μH	150	100	50 / 60	5	23	210	2,5	50	99,79	45

Note 1: DC Resistance per each phase (mΩ)

Note 2: Total inductance for AIC-2P-XXX-XX.

Inductance per phase for AIC-3P-XXX-XX.

Dimensions (in mm)



### Dimensions of mono-phase chokes

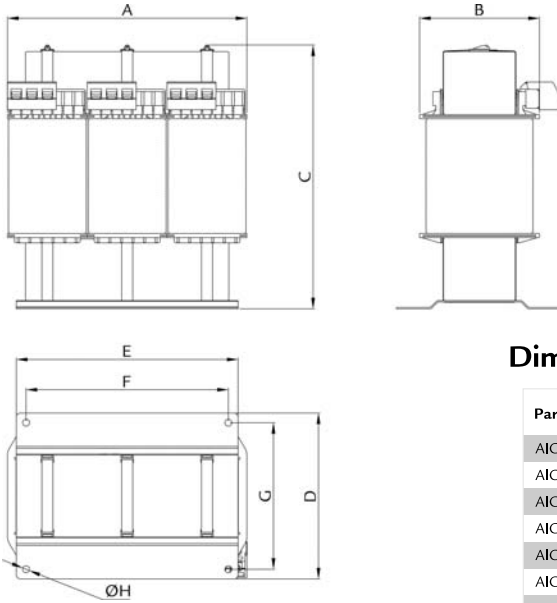
Part Number	A	B	C	D	E	F	G	H
AIC-2P-300-12	120	70	150	85	75	65	75	5
AIC-2P-600-12	120	85	150	100	75	65	90	5
AIC-2P-150-23	120	70	150	85	75	65	75	5
AIC-2P-250-23	120	85	150	100	75	65	90	5
AIC-2P-300-23	120	85	150	100	75	65	90	5

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## High Energy Storage Chokes for Inverter Applications

High Energy Storage Chokes

Dimensions (in mm)

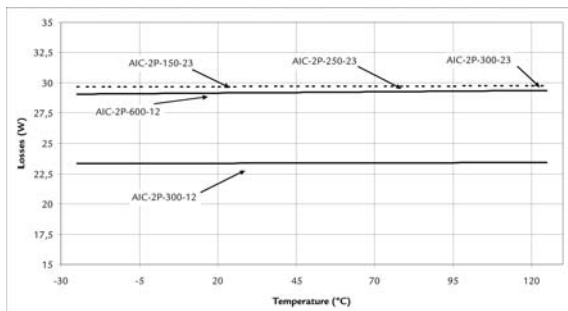


### Dimensions of three-phase chokes

Part Number	A	B	C	D	E	F	G	H
AIC-3P-150-15	180	80	150	85	125	115	75	5
AIC-3P-200-15	180	95	150	100	125	115	90	5
AIC-3P-100-23	180	95	150	100	125	115	90	5
AIC-3P-200-23	200	100	180	110	150	140	100	5
AIC-3P-075-30	180	95	150	100	125	115	90	5
AIC-3P-150-30	200	100	180	110	150	140	100	5
AIC-3P-075-36	200	100	180	110	150	140	100	5
AIC-3P-150-36	250	125	210	120	190	180	110	5
AIC-3P-032-75	250	125	210	120	190	180	110	5
AIC-3P-075-75	290	145	245	130	220	220	210	5
AIC-3P-025-150	320	180	270	160	250	240	150	5
AIC-3P-050-150	320	180	270	160	250	240	150	5

### Mono-phase graphics

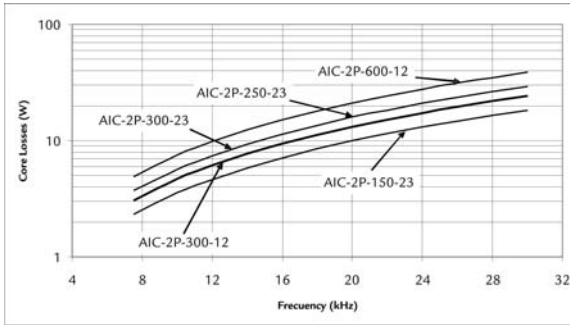
Losses (W) Vs. Temperature (°C)



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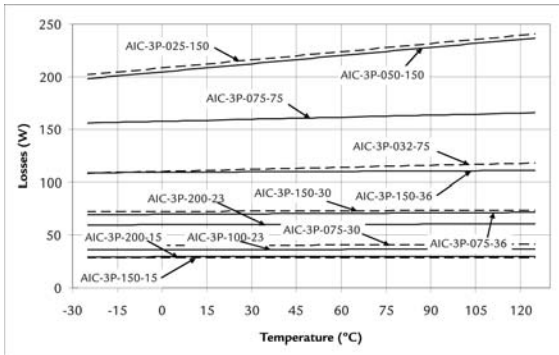
## High Energy Storage Chokes for Inverter Applications

Core Losses (W) Vs. Frequency (kHz)



### Three-phase graphics

Losses (W) Vs. Temperature (°C)



Core Losses (W) Vs. Frequency (kHz)

