Power Factor Correction

Harmonic filter reactor

Series/Type: **B44066D***M*****
Ordering code:

Date: August 2026
Version: 1

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Harmonic filter reactor B44066D***M***

Characteristics



- Very high linearity
- Temperature control vial micro switch in inner coil
- Long life time by high quality materials
- Low losses
- High overloading capability
- Safety device, temperature micro switch
- Aluminium foil winding
- Low noise

Features

- Ultra-fast reactive power compensation
- Load balancing between phases
- Intelligent and instantaneous reactive power
- High performance and reliability
- Simple installation and commissioning

Typical applications

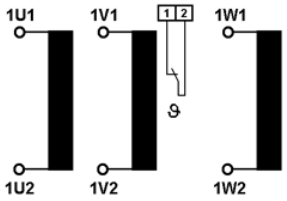
- Protect shunt capacitor banks from harmonic amplification
  And harmonic overloading of capacitors
- Tuning of capacitor banks to the desirable frequency
- Buildings (hotels, hospitals, shopping malls)
- Data Centres, IT/ITES
- EV Charging Stations

Technical data and specifications

De-tuning factor p	7% / 14%
Rated frequency f_R	50/60 Hz
Ambient temperature / Insulation class	40 °C / H
Rated harmonic voltages (3^{rd} / 5^{th} / 7^{th} / 11^{th} / 13^{th})	0.5% / 6% / 5% / 3.5% / 3%
Temperature protection (NC)	Yes
Conductor material	Aluminium Foil
Reference standard	IEC 60076-6

Connections

Line	1U1-1V1-1W1
Capacitors	1U2-1V2-1W2
Temperature control	1-2



Characteristics and ordering codes

Ordering code	Qc kvar	L mH	I1[1] A	I_{RMS}[2] A	Linear up to A	P_D W	Total weight (approx.) kg
Rated voltage V_R: 400 V, 7%, 50 Hz							
B44066D7012M400	12.5	3.068	19.12	20.4	35	80	15
B44066D7025M400	25	1.534	38.24	40.9	70	180	18
B44066D7050M400	50	0.767	76.48	81.8	270	270	28
B44066D7075M400	75	0.511	114.74	122.7	210	330	39
B44066D7100M400	100	0.384	153.6	163.3	279	390	50
Rated voltage V_R: 440 V, 7%, 50 Hz							
B44066D7012M440	12.5	3.713	17.38	18.6	32	80	15
B44066D7025M440	25	1.856	34.77	37.2	64	170	18
B44066D7050M440	50	0.928	69.54	74.3	127	250	33
B44066D7075M440	75	0.619	104.43	111.4	191	340	43

[1] $I1 = 1.06 \cdot I_R$ (I_R = Capacitor current 50/60 Hz)

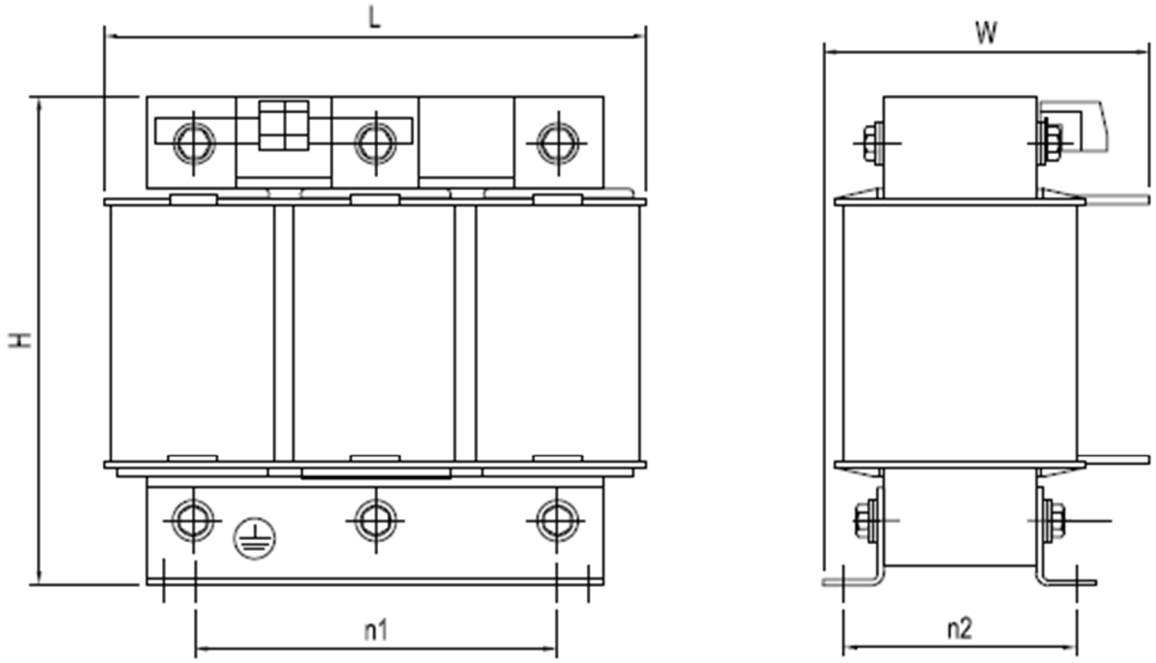
[2] $I_{eff} = \sqrt{(I_1^2 + I_3^2 + ...I_x^2)}$

Ordering code	Qc kvar	L mH	I1[1] A	I_{RMS}[2] A	Linear up to A	P_D W	Total weight (approx.) kg
B44066D7100M440	100	0.464	139.08	148.7	254	410	49
Rated voltage V_R: 400 V, 7%, 60 Hz							
B44066D7012M401	12.5	2.56	19.12	20.45	35	90	15
B44066D7025M401	25	1.28	38.24	40.9	70	170	17
B44066D7050M401	50	0.64	76.49	81.8	140	240	27
B44066D7100M401	100	0.32	152.99	163.3	279	380	45
Rated voltage V_R: 440 V, 7%, 60 Hz							
B44066D7012M441	12.5	3.092	17.38	18.6	32	90	15
B44066D7025M441	25	1.55	34.77	37.2	64	130	18
B44066D7050M441	50	0.77	65.60	74.4	127	250	27
B44066D7100M441	100	0.39	131.20	148.6	254	380	45
Rated voltage V_R: 480 V, 7%, 60 Hz							
B44066D7012M481	12.5	3.68	15.93	17.0	29	80	15
B44066D7025M481	25	1.84	31.87	34.1	58	130	19
B44066D7027M481	27	1.70	34.42	36.80	63	170	18
B44066D7050M481	50	0.92	63.74	68.2	117	260	27
B44066D7054M481	54	0.85	68.84	73.6	136	250	28
B44066D7100M481	100	0.46	127.49	136.3	233	370	45
Rated voltage V_R: 400 V, 14%, 50 Hz							
B44066D1412M400	12.5	6.636	19.12	19.3	26	90	22
B44066D1425M400	25	3.318	32.80	38.50	53	200	27
B44066D1450M400	50	1.66	65.6	77.0	104	290	40
Rated voltage V_R: 480 V, 14%, 60 Hz							
B44066D1412M481	12.5	7.959	15.93	16.1	22	90	23
B44066D1425M481	25	3.98	31.86	32.1	44	170	23
B44066D1450M481	50	1.991	63.72	64.2	88	260	40

[1] $I1 = 1.06 \cdot I_R$ (I_R = Capacitor current 50/60 Hz)

[2] $I_{eff} = \sqrt{(I_1^2 + I_3^2 + \ldots I_x^2)}$

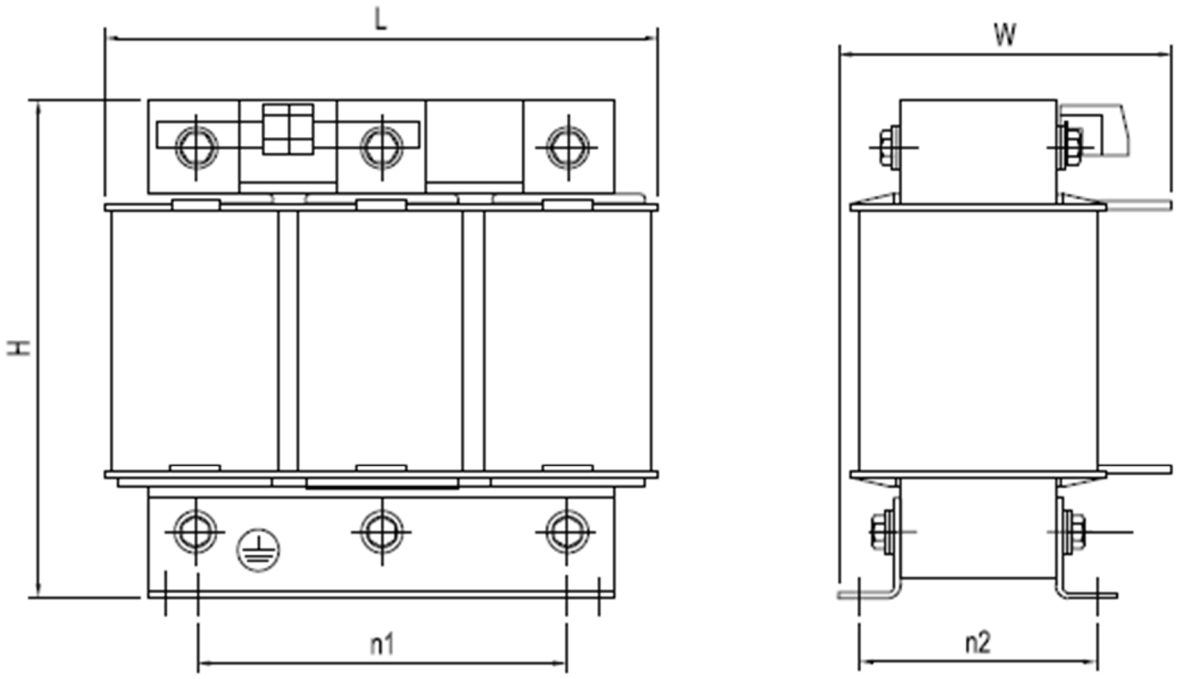
Dimensional drawings, 7%



Qc kvar	L mm	W mm	H mm	n1 mm	n2 mm
Rated voltage V_R: 400 V, 50 Hz					
12.5	220	136	165	150	95
25	225	140	205	150	95
50	260	155	235	150	102
75	300	170	265	150	119
100	300	205	265	150	147
Rated voltage V_R: 440 V, 50 Hz					
12.5	230	131	160	150	95
25	230	140	200	150	95
50	300	170	235	150	119
75	300	180	265	150	134
100	300	185	295	150	134
Rated voltage V_R: 400 V, 60 Hz					
12.5	220	136	162	150	95
25	225	140	205	150	95
50	260	155	235	150	102
100	300	205	265	150	147

Qc kvar	L mm	W mm	H mm	n1 mm	n2 mm
Rated voltage V_R: 440 V, 60 Hz					
12.5	230	141	160	150	95
25	225	140	200	150	95
50	300	170	235	150	119
100	300	185	295	150	134
Rated voltage V_R: 480 V, 60 Hz					
12.5	220	144	162	150	95
25	225	140	200	150	95
27	225	135	205	150	95
50	255	155	235	150	104
54	260	150	235	150	102
100	300	186	267	150	134

Dimensional drawings, 14%



Qc kvar	L mm	W mm	H mm	n1 mm	n2 mm
Rated voltage V_R: 400 V, 14%, 50 Hz					
12.5	260	150	185	150	102
25	260	155	235	150	102
50	300	185	235	150	134
Rated voltage V_R: 480 V, 14%, 60 Hz					
12.5	260	146	185	150	102
25	260	148	185	150	102
50	300	188	234	150	134

Cautions and Warnings

FAILURE TO FOLLOW CAUTIONS MAY RESULT IN PREMATURE FAILURES OR, WORST CASE, PHYSICAL INJURY.

- Do not install the reactor in case of any visible damages.
- Installation must be done by skilled personnel only.
- Do not use or store harmonic filter reactors in corrosive atmosphere, especially where chloride gas, sulphide gas, acid, alkali, salt or similar substances are present or in dusty environment.
- Do not touch the device during operation: all electrically active parts of this equipment such as windings, electronic components, leads, fuses and terminals carry a dangerous voltage which can lead to burns or electric shock.
- Covers which protect these electrically active parts from being touched must not be opened or removed during operation.
- Before any assembly or maintenance work is started, all installations and equipment must be disconnected from the power source.
- Noncompliance with these instructions may lead to death, serious injury or major damage to equipment.

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Release 2024-02