

PIHF Harmonic Filter



PIHF Harmonic Filter can be used with ACS510/ACS530/ACx580/ACS880 full power range drives, thereby effectively reducing the harmonic current on the power supply side.

Technical data

Power connection	
Rated voltage	3-phase, $U_{N3} = 380$ to 415 V +10% to -15%
Degree of protection	IP00
Harmonic filtering effect	In full load condition, THDi of filter input is less than 10%. (Background voltage THDu < 2%, ratio of short circuit grid power to installed load > 66)
Frequency	50 Hz
Insulation class	Overvoltage category III, according to EN61800-5-1
Overheating protection	155 °C
Environmental limits	
Cooling method	Air cooling
Ambient temperature (operation)	In full load condition: -25 °C to +40 °C
Storage temperature	-25 °C to +70 °C
Operation altitude	0 to 2000 m
Relative humidity	0 to 95%, no condensation allowed
Product compliance	
CE Low Voltage Directive 2014/35/EU, EN 61558-2-20:2011 EMC Directive 2014/30/EU, EN 61000-6-4:2019; EN 61000-3-12:2011; EN 61000-3-11:2000; EN 61000-6-2:2019; EN 61000-4-2:2009, EN 61000-4-3:2006+A2:2010, EN 61000-4-4:2012, EN 61000-4-5:2014, EN 61000-4-6:2014, EN 61000-4-8:2010, EN 61000-4-11:2004 RoHS Directive 2011/65/EU and Delegated Directive (EU) 2015/863	

Overall dimension

Harmonic filter Type code	Frame size	Height (mm)	Width (mm)	Depth (mm)	Weight (kg)
PIHF-0004-4-10		400	220	175	12
PIHF-0007-4-10	S1	400	220	175	14
PIHF-0012-4-10		500	292	235	23
PIHF-0015-4-10	S2	500	292	235	30
PIHF-0030-4-10		600	306	275	50
PIHF-0045-4-10	S3	600	306	275	55
PIHF-0075-4-10		605	387	315	67
PIHF-0090-4-10	S4	605	387	315	70
PIHF-0160-4-10		950	455	335	140
PIHF-0205-4-10	S5	950	455	335	145
PIHF-0290-4-10		1060	485	365	190
PIHF-0363-4-10	S6	1060	485	365	195
PIHF-0430-4-10					195
PIHF-0505-4-10	PIHF-205-4-10+ PIHF-290-4-10 Parallel installation	/	/	/	/
PIHF-0585-4-10	PIHF-290-4-10+ PIHF-290-4-10 Parallel installation	/	/	/	/
PIHF-0650-4-10	PIHF-205-4-10+ PIHF-430-4-10 Parallel installation	/	/	/	/
PIHF-0725-4-10	PIHF-290-4-10+ PIHF-430-4-10 Parallel installation	/	/	/	/

The reactor in the filter is a heating device. A minimum of 200 mm of installation space should be maintained around the filter during installation.

Connection diagram



Product type selection table

Filter code	ACS510-01	Frame size	ACS530-01	Frame size	ACx580-01	Frame size	ACS880-01	Frame size	I_{MAX} A	P_{MAX} kW	Heat dissipation W	Noise level dBA
3-phase 380 to 415 V -15% to +10% IP00												
PIHF-0004-4-10	-	-	02A6	R0	02A7	R1	02A4	R1	4.1	1.5	90	<70
	03A3	R1	03A3	R0	03A4	R1	03A3	R1	4.1	1.5	90	<70
	04A1	R1	04A0	R0	04A1	R1	04A0	R1	4.1	1.5	90	<70
PIHF-0007-4-10	05A6	R1	05A6	R0	05A7	R1	05A6	R1	7.2	3	90	<70
	07A2	R1	07A2	R0	07A3	R1	07A2	R1	7.2	3	90	<70
PIHF-0012-4-10	09A4	R1	09A4	R0	09A5	R1	09A4	R1	12.6	5.5	140	<70
	012A	R1	12A6	R1	12A7	R1	12A6	R1	12.6	5.5	140	<70
PIHF-0015-4-10	017A	R2	017A	R2	018A	R2	017A	R2	17	7.5	150	<70
PIHF-0030-4-10	025A	R2	025A	R2	026A	R2	025A	R2	32	15	220	<70
	031A	R3	033A	R3	033A	R3	032A	R3	32	15	220	<70
PIHF-0045-4-10	038A	R3	039A	R3	039A	R3	038A	R3	46	22	330	<72
	046A	R3	046A	R3	046A	R3	045A	R4	46	22	330	<72
PIHF-0075-4-10	060A	R4	062A	R4	062A	R4	061A	R4	72	37	460	<72
	072A	R4	073A	R4	073A	R4	072A	R5	72	37	460	<72
PIHF-0090-4-10	088A	R4	088A	R5	088A	R5	087A	R5	88	45	510	<72
PIHF-0160-4-10	-	-	106A	R5	106A	R5	105A	R6	169	75	660	<75
	125A	R5	145A	R6	145A	R6	145A	R6	169	75	660	<75
	157A	R6	169A	R7	169A	R7	169A	R7	169	75	660	<75
PIHF-0205-4-10	180A	R6	-	-	-	-	-	-	206	110	850	<75
	195A	R6	206A	R7	206A	R7	206A	R7	206	110	850	<75
PIHF-0290-4-10	246A	R6	246A	R8	246A	R8	246A	R8	293	160	1050	<75
	290A	R6	293A	R8	293A	R8	293A	R8	293	160	1050	<75
PIHF-0363-4-10	-	-	363A	R9	363A	R9	363A	R9	363	200	1070	<75
PIHF-0430-4-10	-	-	430A	R9	430A	R9	430A	R9	430	250	1150	<75
Filter code	ACS510-01	Frame size	ACS530-01	Frame size	ACx580-04	Frame size	ACS880-04	Frame size	I_{MAX} A	P_{MAX} kW	Heat dissipation W	Noise level dBA
PIHF-0505-4-10	-	-	-	-	505A	R10	505A	R10	505	250	1880	<80
PIHF-0585-4-10	-	-	-	-	585A	R10	585A	R10	585	315	2100	<80
PIHF-0650-4-10	-	-	-	-	650A	R10	650A	R10	650	355	2120	<80
PIHF-0725-4-10	-	-	-	-	725A	R11	725A	R11	725	400	2200	<80

Rated value

I_{MAX} Maximum continuous current

P_{MAX} Maximum power

Note: The power of the selected filter and drive shall be matched as closely as possible to achieve the best filtering effect. Otherwise, the filter of larger power can be used with the drive of smaller power. However, the filtering effect will be reduced.

It is recommended that the connecting cable between the filter and drive not exceed 10 m.

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