

The Enerdoor harmonic filter series includes line reactors, passive and active harmonic filters, and static var generators.

Enerdoor line reactors are available with 3% and 5% impedance and with nominal voltage up to 600 Vac.

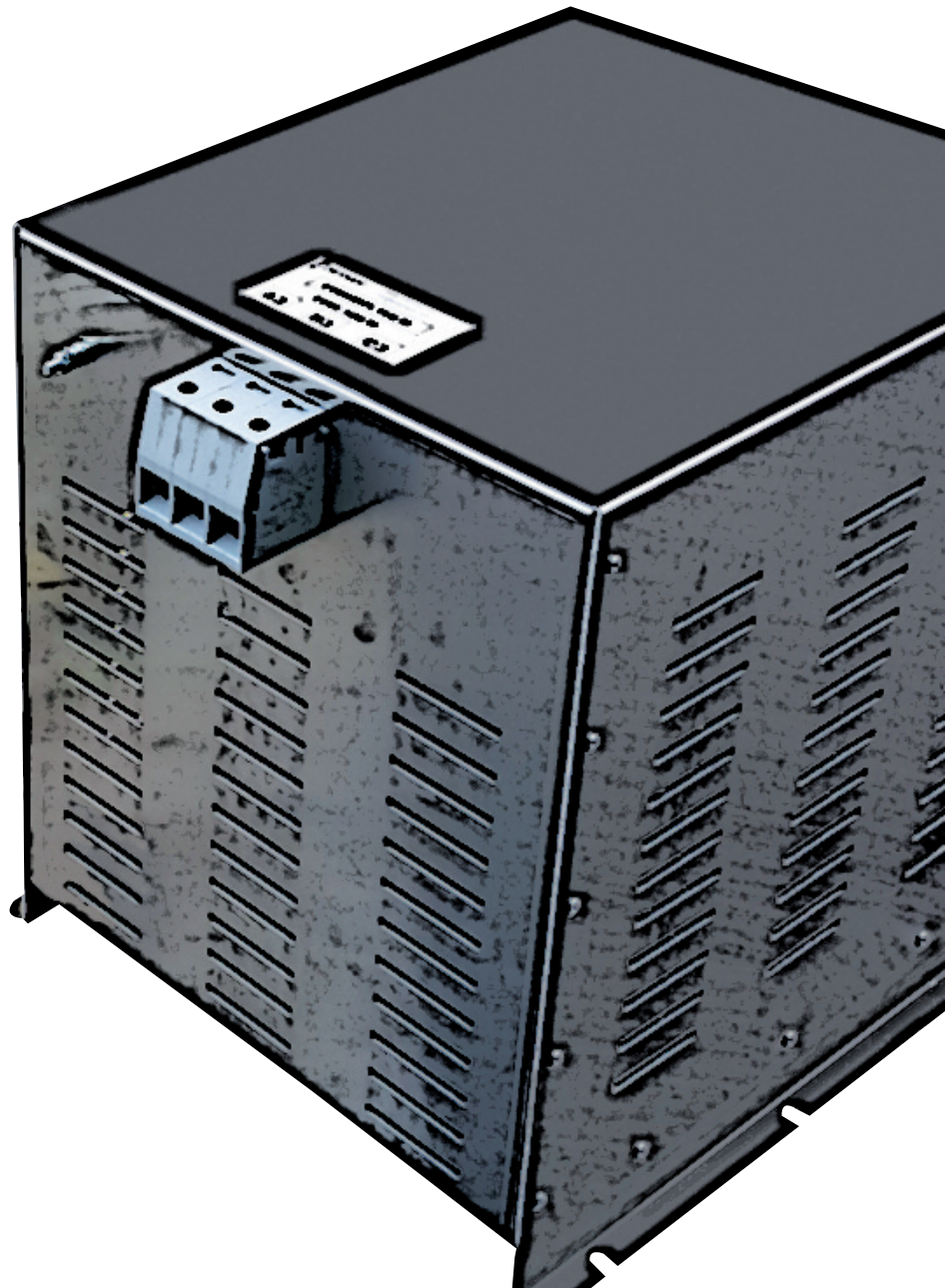
Enerdoor passive harmonic filter series is available up to 800A with nominal voltage up to 480 Vac. Custom filters are available with voltage up to 690 Vac. This series features different levels of attenuation offering the best solution to meet the EN61000-3-2, EN61000-3-12 and IEEE519 International Standard requirements.

As a standard, the FINHRM5 offers a current range up to 800A and the FINHRM up to 200A. The typical THDI reduction is <5% for the FINHRM5 and <15% for the FINHRM. Neither filter is effected by network impedance. This series is designed to guarantee a power factor greater than 0.9 considering an initial value of 0.7. An additional external capacitor to improve power factor correction may be included, as required.

This series reduces the effects of voltage dips less than 5 ms on the machine performance and reduces flicker emissions.

The Enerdoor active harmonic filter FINHRMA is a modular design installed in parallel to the power line and compensates harmonics below 5%. This line is available from 230 Vac to 600 Vac with nominal current from 35A to 150A. Features include remote control and wall or panel mount installation.

Enerdoor static var generator FINSVG is a modular design installed in parallel to the power line and compensates reactive power in order to improve power factor correction.

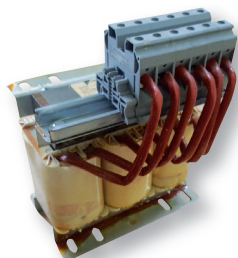




Datasheet 3/2017

Line reactor 230 Vac, 3% and 5% impedance, with high attenuation of current distortion and overvoltage spikes

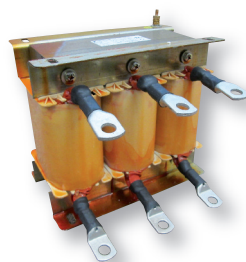
APPROVALS:

 UL1283
 CSA C22.2

FINFF (terminal blocks)
FEATURES

- Rated current from 2.5 to 250A
- High differential mode attenuation
- Terminal blocks up to 130A

BENEFITS

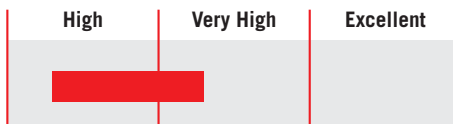
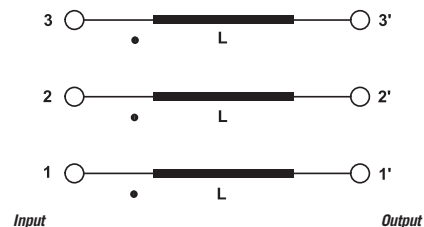
- Various connections available
- Finger safe protection upon request
- Available with enclosure Nema 1 and Nema 3R


FINFF (lug connections)
MARKETS

- Variable frequency drives / servo drives
- Automated equipment
- Industrial automation
- Pumps

ORDERING CODE

Model	Inductance (L)	Current (A)	Internal ID
FINFF 020P1	20.1 mH	1.1A	0831

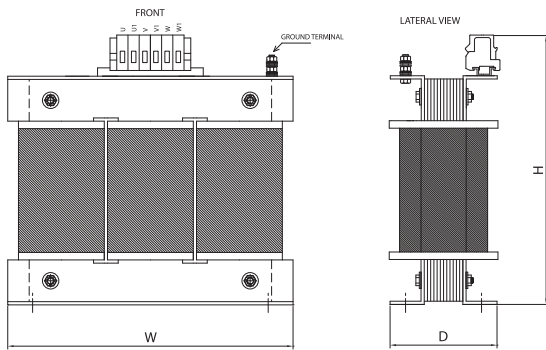
ATTENUATION INDICATOR

ELECTRIC DIAGRAM

TECHNICAL SPECIFICATIONS

Nominal voltage	0 / 600 Vac
Frequency	50 – 60 Hz
Rated current	7 to 250A
Potential test voltage phase to phase	2400 Vdc (2 sec.)
Potential test voltage phase to ground	3200 Vdc (2 sec.)
Saturation current	1.5 x I _n
Dielectric strength	4 KV
IP Protection	IP20 up to 180A, IP00 over
Overload capability	4 x Rated current (Switch ON) 2 x I _n 10 seconds 1.5 x I _n 10 minutes
Climatic class	-40 / +85° C
MTBF at 40°C	250.000 Hrs.

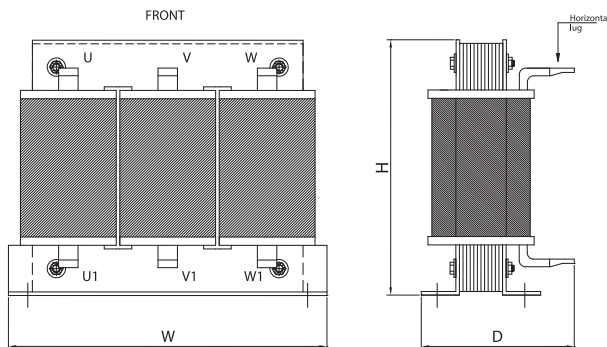
ELECTRICAL CHARACTERISTICS - MECHANICAL DIMENSIONS

HP@230 Vac	Rated Current 40°C	FF 3% @230Vac	Open Frame Dimensions			Weight (Kg)	Case	Nema 1 Enclosure	FF 5% @230Vac	Open Frame Dimensions			Weight (Kg)	Case	Nema 1 Enclosure
			H	W	D					H	W	D			
0.5	2.4	FF5P05502P11291	120	120	80	1.8	1	FINENCL.31	FF010P602P10829	120	90	120	1.9	1	FINENCL.31
0.75	3.5	FF03P1203P41292	120	120	80	1.8	1	FINENCL.31	FF006P503P40827	120	90	120	2	1	FINENCL.31
1	4.6	FF02P2104P81293	120	120	80	1.9	1	FINENCL.31	FF004P604P80826	129	90	120	2.1	1	FINENCL.31
2	7.6	FF001P407P61294	120	120	90	2.4	1	FINENCL.31	FF02P9107P60832	165	160	120	4	1	FINENCL.31
3	11	FFOP96500111295	160	160	120	3.9	1	FINENCL.31	FF02P0100110833	165	160	120	4	1	FINENCL.31
4	14	FFOP75800141296	160	160	120	4	1	FINENCL.31	FF01P5800140834	165	160	130	4.7	1	FINENCL.31
7	21	FFOP50500211297	160	160	120	4	1	FINENCL.31	FF01P0500210835	165	160	130	5	1	FINENCL.31
10	34	FFOP26500401301	210	160	130	5	1	FINENCL.41	FF00P6400340837	250	180	135	7.6	1	FINENCL.41
15	52	FFOP20500521302	240	180	135	7.5	1	FINENCL.41	FF00P4200520840	250	180	145	9	1	FINENCL.41
25	83	FFOP12800831303	300	240	150	12	1	FINENCL.41	FFOP26800831002	300	240	180	22	1	FINENCL.41
35	105	FFOP10101051304	300	240	150	12.5	1	FINENCL.41	FFOP26301050976	300	240	185	23	1	FINENCL.41
40	130	FFOP08201301305	305	240	165	17	1	FINENCL.41	FF00P1701301003	350	300	190	27	1	FINENCL.41
60	160	FFOP06601601306	210	240	165	17	2	FINENCL.41	FF00P1501600954	300	300	210	29	2	FINENCL.51
70	200	FFOP05302001307	210	240	185	22	2	FINENCL.41	FFOP11102001004	300	220	300	33	2	FINENCL.51
90	250	FFOP04302501308	315	300	230	26	2	FINENCL.51	FFOP08902501005	300	230	300	41	2	FINENCL.51

CASE 1



CASE 2



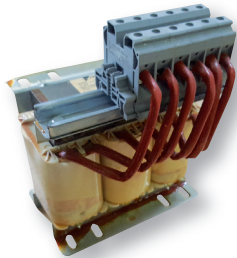


Datasheet 3/2017

Line reactor 400 Vac, 3% and 5% impedance, with high attenuation of current harmonic distortion and overvoltage spikes

APPROVALS:

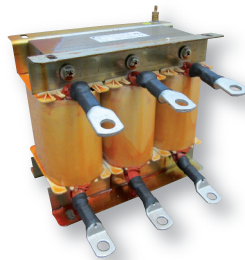
 UL1283
CSA C22.2


FINFF (terminal blocks)
FEATURES

- Rated current from 1 to 865A
- High differential mode attenuation
- Terminal blocks up to 180A

BENEFITS

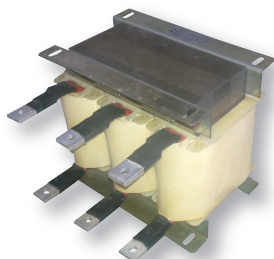
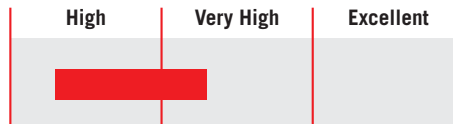
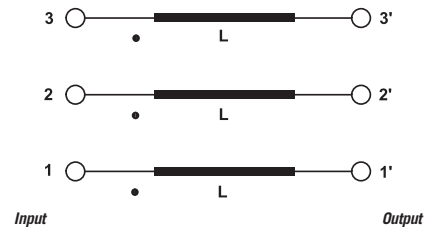
- Various connections available
- Finger safe protection upon request
- Available with enclosure Nema 1 and Nema 3R


FINFF (lug connections)
MARKETS

- Frequency drives and servo drives
- Automated equipment
- Industrial automation
- Pumps

ORDERING CODE

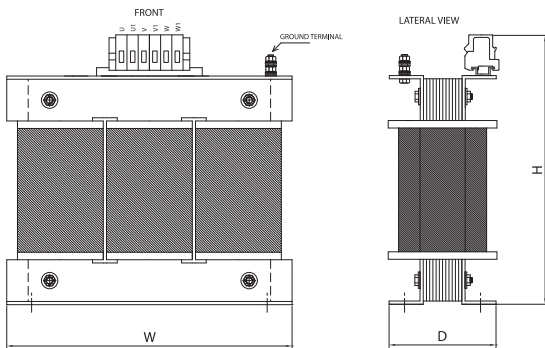
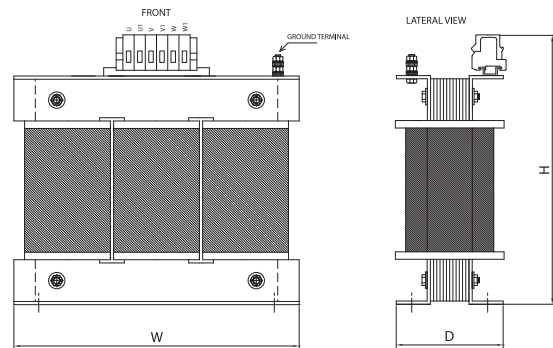
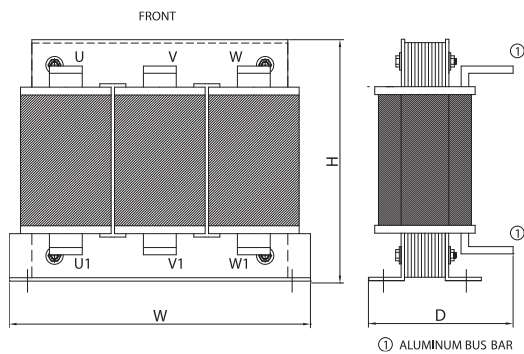
FINFF	4P050	006	1818
Model	Inductance (L)	Current (A)	Internal ID
	4.050 mH	6A	


FINFF (bus bar connections)
ATTENUATION INDICATOR

ELECTRIC DIAGRAM

TECHNICAL SPECIFICATIONS

Nominal voltage	0 / 750 Vac
Frequency	50 – 60 Hz
Rated current	1 to 865A
Potential test voltage phase to phase	2400 Vdc (2 sec.)
Potential test voltage phase to ground	3200 Vdc (2 sec.)
Saturation current	1.5 x I _n
Dielectric strength	4 KV
IP Protection	IP20 up to 180A, IP00 over
Overload capability	4 x Rated current (Switch ON) 2 x I _n 10 seconds 1.5 x I _n 10 minutes
Climatic class	-40 / +85° C
MTBF at 40°C	250.000 Hrs.

ELECTRICAL CHARACTERISTICS - MECHANICAL DIMENSIONS

HP@400 Vac	Rated Current 40°C	FF 3% @400Vac	Open Frame Dimensions			Weight (Kg)	Case	Nema 1 Enclosure	FF 5% @400Vac	Open Frame Dimensions			Weight (Kg)	Case	Nema 1 Enclosure
			H	W	D					H	W	D			
3.5	6	FF04P0500061818	120	120	90	2.2	1	FINENCL.31	FF6P7520006	160	160	120	3.3	3.3	FINENCL.31
8	12	FF2P0250012	160	160	120	3.6	1	FINENCL.31	FF3P3750012	160	160	130	4.5	1	FINENCL.31
11	18	FF1P17200181833	160	160	120	3.7	1	FINENCL.31	FF1P97500181834	160	160	130	4.6	1	FINENCL.31
15	24	FF0P88100241819	180	180	120	5.5	1	FINENCL.31	FF1P4680024	180	180	130	7	1	FINENCL.31
20	32	FF0P6660032	180	180	120	6	1	FINENCL.31	FF01P010032	300	240	140	11	1	FINENCL.41
24	38	FF0P63900381820	180	180	135	7.5	1	FINENCL.31	FF1P0660038	300	240	140	11.5	1	FINENCL.41
28	45	FF0P5410045	300	240	140	11	1	FINENCL.41	FF00P90045	300	240	165	15.5	1	FINENCL.41
38	60	FF0P40500601821	300	240	140	11	1	FINENCL.41	FF0P6750060	300	240	165	16.5	1	FINENCL.41
46	73	FF0P3340073	300	240	165	16	1	FINENCL.51	FF0P5550073	300	240	165	17	1	FINENCL.51
57	90	FF0P2670091	300	240	165	16.5	1	FINENCL.51	FF0P4450091	300	240	180	20	1	FINENCL.51
70	110	FF0P22101101822	300	240	165	17	1	FINENCL.51	FF0P3680110	270	300	200	27	1	FINENCL.61
95	150	FF0P16201501826	215	240	250	21	1	FINENCL.61	FF00P90045	270	300	210	31	2	FINENCL.61
114	180	FF0P1350180	270	300	200	26	1	FINENCL.61	FF0P2250180	270	300	240	39	2	FINENCL.61
139	220	FF00P1102201827	270	300	200	28	2	FINENCL.61	FF0P1840220	340	340	250	49	2	FINENCL.61
164	260	FF0P0980260	270	300	250	38	2	FINENCL.71	FF0P1620260	340	340	250	52	2	FINENCL.71
196	310	FF0P07803101829	270	300	250	39	2	FINENCL.71	FF0P1310310	340	340	260	60	2	FINENCL.71
234	370	FF0P06006831824	340	340	250	50	3	FINENCL.71	FF0P1090370	340	340	280	82	3	FINENCL.81
290	460	FF0P0540460	340	340	270	61	3	FINENCL.81	FF0P0900460	410	480	300	95	3	FINENCL.81
347	550	FF0P04405501831	340	340	270	63	3	FINENCL.81	FF0P0740550	410	480	300	110	3	FINENCL.81
388	615	FF0P03906161832	340	340	280	80	3	FINENCL.81	FF0P0660616	410	480	330	119	3	FINENCL.101
429	680	FF0P0360683	410	480	300	90	3	FINENCL.101	FF0P06006831824	410	480	320	120	3	FINENCL.101
546	865	FF0P02808661823	410	480	300	100	3	FINENCL.101	FF0P04708661825	650	600	370	173	3	FINENCL.101

CASE 1

CASE 2

CASE 3


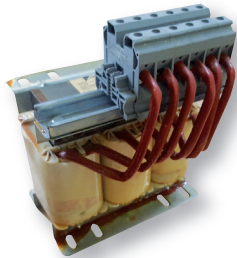


Datasheet 3/2017

Line reactor 480 Vac, 3% and 5% impedance, with high attenuation of current harmonic distortion and overvoltage spikes

APPROVALS:

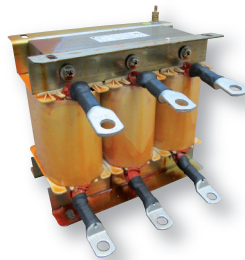
 UL1283
 CSA C22.2


FINFF (terminal blocks)
FEATURES

- Rated current from 1 to 750A
- High differential mode attenuation
- Terminal blocks up to 180A

BENEFITS

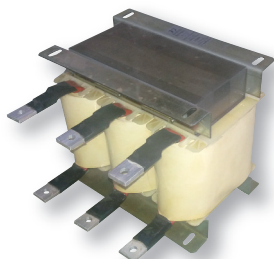
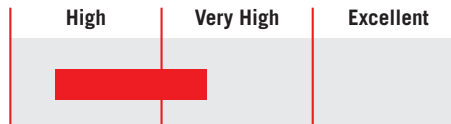
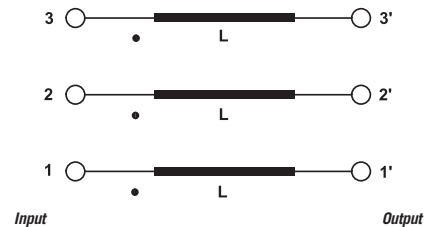
- Various connections available
- Finger safe protection upon request
- Available with enclosure Nema 1 and Nema 3R


FINFF (lug connections)
MARKETS

- Variable frequency drives / servo drives
- Automated equipment
- Industrial automation
- Pumps

ORDERING CODE

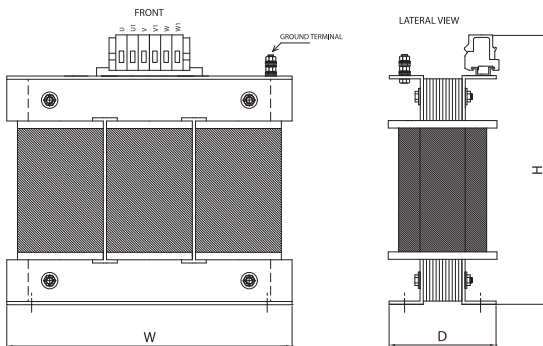
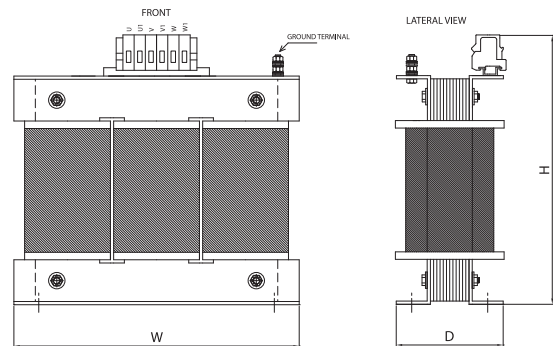
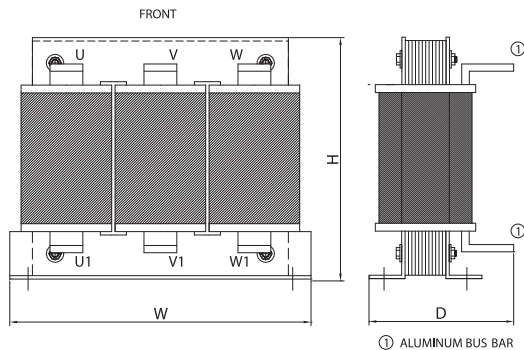
Model	Inductance (L)	Current (A)	Internal ID
FINFF 020P1	20.1 mH	1.1A	0831


FINFF (bus-bar connections)
ATTENUATION INDICATOR

ELECTRIC DIAGRAM

TECHNICAL SPECIFICATIONS

Nominal voltage	0 / 750 Vac
Frequency	50 – 60 Hz
Rated current	1 to 750A
Potential test voltage phase to phase	2400 Vdc (2 sec.)
Potential test voltage phase to ground	3200 Vdc (2 sec.)
Saturation current	1.5 x I _n
Dielectric strength	4 KV
IP Protection	IP20 up to 180A, IP00 over
Overload capability	4 x Rated current (Switch ON) 2 x I _n 10 seconds 1.5 x I _n 10 minutes
Climatic class	-40 / +85° C
MTBF at 40°C	250.000 Hrs.

ELECTRICAL CHARACTERISTICS - MECHANICAL DIMENSIONS

HP@480 Vac	Rated Current 40°C	FF 3% @480Vac	Open Frame Dimensions			Weight (Kg)	Case	Nema 1 Enclosure	FF 5% @480Vac	Open Frame Dimensions			Weight (Kg)	Case	Nema 1 Enclosure
			H	W	D					H	W	D			
0.5	1.1	FF020P101P10831	120	120	90	1.6	1	FINENCL.31	FF033P501P10978	120	120	90	2	1	FINENCL.31
0.75	1.6	FF0013P901P60830	120	120	90	1.85	1	FINENCL.31	FF0002301P60979	120	120	90	2.1	1	FINENCL.31
1	2.1	FF010P602P10829	120	90	120	1.9	1	FINENCL.31	FF0001802P10980	120	90	120	2.5	1	FINENCL.31
2	3.4	FF006P503P40827	120	90	120	2	1	FINENCL.31	FF0001103P40981	120	90	120	2.8	1	FINENCL.31
3	4.8	FF004P604P80826	120	90	120	2.1	1	FINENCL.31	FF007P704P80982	160	160	120	4	1	FINENCL.31
5	7.6	FF02P9107P60832	165	160	120	4	1	FINENCL.31	FF04P8407P60983	160	160	120	4.5	1	FINENCL.31
7.5	11	FF02P0100110833	165	160	120	4	1	FINENCL.31	FF003P300110984	160	160	130	5.3	1	FINENCL.31
10	14	FF01P5800140834	165	160	130	4.7	1	FINENCL.31	FF002P600140985	160	160	130	5.5	1	FINENCL.31
15	21	FF01P0500210835	165	160	130	5	1	FINENCL.31	FF01P7600210986	180	180	130	8	1	FINENCL.31
20	27	FF00P8200340836	250	180	135	7.4	1	FINENCL.31	FF001P300270987	180	180	140	9	1	FINENCL.31
25	34	FF00P6400340837	250	180	135	7.6	1	FINENCL.31	FF001P200340988	300	240	145	12	1	FINENCL.41
30	40	FF00P5500400839	250	180	135	8	1	FINENCL.31	FF00P9800460989	300	240	145	12.5	1	FINENCL.41
40	52	FF00P3400650840	250	180	145	9	1	FINENCL.41	FF00P7500520990	300	240	145	13	1	FINENCL.41
60	83	FF0P26800831002	300	240	150	14	1	FINENCL.41	FF00P5100830991	300	240	180	23	1	FINENCL.41
75	104	FF0P26301050976	300	240	180	22	1	FINENCL.41	FF0P37501040992	350	300	190	28	1	FINENCL.51
100	130	FF00P1701301003	300	240	185	23	1	FINENCL.41	FF000P301300993	350	300	190	28.5	2	FINENCL.51
125	160	FF00P1501600954	350	300	190	27	2	FINENCL.61	FF00P2601600994	300	300	210	33	2	FINENCL.61
150	200	FF0P11102001004	300	300	210	29	2	FINENCL.61	FF000P202000995	300	300	250	41	2	FINENCL.61
200	250	FF0P08902501005	300	300	220	33	2	FINENCL.61	FF0P17702501853	340	395	240	55	2	FINENCL.61
250	322	FF0P68703221006	300	300	230	41	3	FINENCL.61	FFP135603251854	340	395	250	62	3	FINENCL.61
300	414	FF0P53504141007	375	395	265	56	3	FINENCL.81	FF0P10604151855	340	395	260	80	3	FINENCL.61
400	515	FF0P04305151008	375	395	275	63	3	FINENCL.81	FFP085805151856	340	395	280	90	3	FINENCL.101
475	600	FF0P36906001009	375	395	375	67	3	FINENCL.101	FFP073606001857	340	395	280	91	3	FINENCL.101
600	750	FF0P29507501010	375	395	300	80	3	FINENCL.101	FF0P04907501858	400	480	350	120	3	FINENCL.101

CASE 1

CASE 2

CASE 3




Passive harmonic filter with very high attenuation of current harmonic distortion and overvoltage spikes

Datasheet 3/2017

APPROVALS:

FINHRM.(016 - 200).M
FEATURES

- Rated current from 16 to 200A
- THDI reduction <15%

BENEFITS

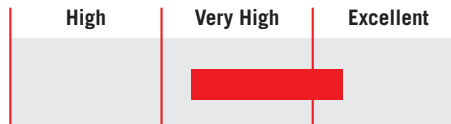
- 2 Year warranty
- Safety terminal block connectors
- Improves harmonics and flickers

MARKETS

- Variable frequency drives
- Woodworking machinery
- Packaging equipment
- Printing machinery

ORDERING CODE

FINHRM	.016	.M	010
Model	Current (A)	Connection	
		M = Terminal block	

ATTENUATION INDICATOR

TECHNICAL SPECIFICATIONS

Nominal voltage	400 / 480 Vac (600Vac upon request)
Frequency	50 – 60 Hz
Rated current	16 to 200A
Potential test voltage phase to phase	2400 Vdc (2 sec.)
Potential test voltage phase to ground	3200 Vdc (2 sec.)
IP Protection	IP20
Overload capability	4 x Rated current (Switch ON) 2 x In 10 seconds 1.5 In for 10 minutes
Climatic class	-40 / +85° C
MTBF at 40°C	250.000 Hrs

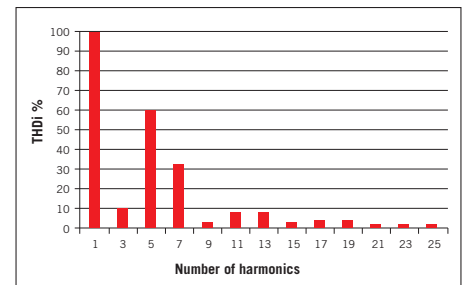
ELECTRICAL CHARACTERISTICS

FINHRM	Rated Current 40°C	Rated Current 50°C	Power Loss (W)
.016.M	8	6	8
.030.M	14	12	10
.050.M	18	16	12
.075.M	28	25	15
.100.M	35	32	23
.150.M	50	42	32
.200.M	63	55	37

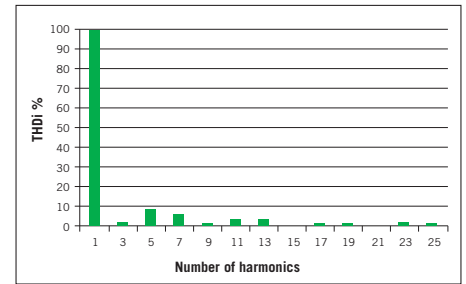
CONNECTIONS

LINE			PE	
Solid Cable (mm ²)	Stranded Cable (mm ²)	Terminal Torque (Nm)	d2 (mm)	Torque (Nm)
0.2 - 10	0.2 - 6	1.2	M6	6
0.2 - 10	0.2 - 6	1.2	M6	6
0.2 - 10	0.2 - 6	1.2	M6	6
4 - 25	6 - 35	4.5	M6	6
10 - 50	10 - 50	4	M6	6
35 - 95	35 - 95	20	M6	6
35 - 95	35 - 95	20	M6	6

TYPICAL MEASUREMENT



Typical measurement without FINHRM

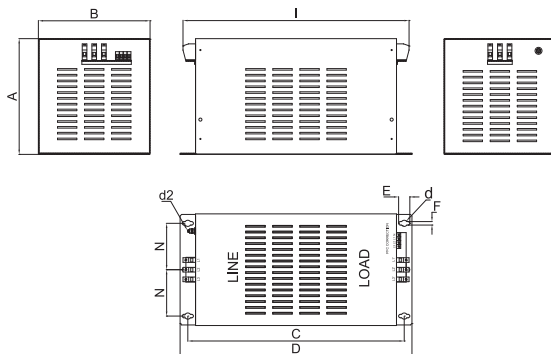


Typical measurement with FINHRM

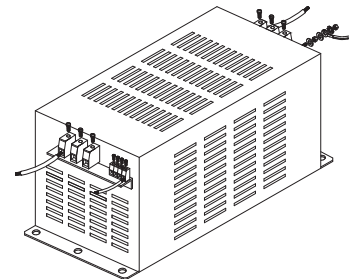
MECHANICAL DIMENSIONS mm

FINHRM	A	B	C	D	E	F	I	N	d	d2	Weight Kg.	Case
.016.M	300	250	400	440	29	9	396	100	16	M6x20	25	1
.030.M	300	250	400	440	29	9	396	100	16	M6x20	28.2	1
.050.M	300	290	560	600	29	9	585	120	16	M6x20	45.5	1
.075.M	300	290	560	600	29	9	585	120	16	M6x20	65	1
.100.M	320	440	660	700	29	9	706	195	16	M6x20	83	1
.150.M	320	440	660	700	29	9	706	195	16	M6x20	104	1
.200.M	370	500	740	780	29	9	800	225	16	M6x20	140	1

CASE 1



ASSEMBLY CONNECTION "M"

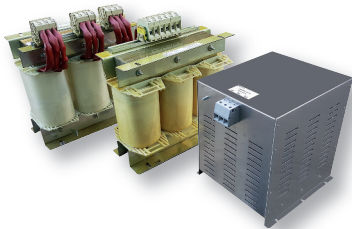




Passive harmonic filter with excellent attenuation of current harmonic distortion and overvoltage spikes

Datasheet 3/2017

APPROVALS:



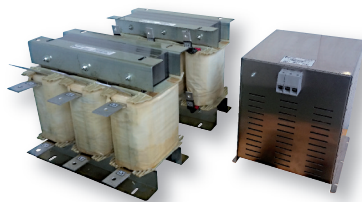
FINHRM5. (010 - 160).M

FEATURES

- Rated current from 10 to 800A
- Current THD <5%
- Improves flicker and power factor

BENEFITS

- Breaker available upon request
- Finger safe protection upon request
- Enclosure available upon request



FINHRM5.(210 - 800).B

MARKETS

- Variable frequency drives
- Pumps
- HVAC system
- Industrial equipment
- UPS

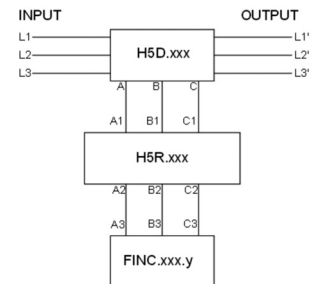
ORDERING CODE

FINHRM5	.007	.M	-60	.HV
Model	Current (A)	Connection	Frequency	690 Vac
		M = Terminal block	Only for 60Hz application	
		V= Screw		
		BC= Bus bar		

ATTENUATION INDICATOR



ELECTRIC DIAGRAM



TECHNICAL SPECIFICATIONS

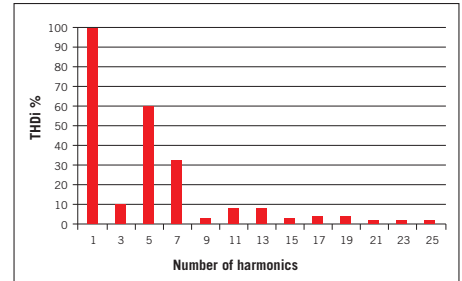
Nominal voltage	230 / 400 / 480 / 690 Vac
Frequency	50 - 60 Hz
Rated current	10 to 800A
Potential test voltage phase to phase	2400 Vdc (2 sec.)
Potential test voltage phase to ground	3200 Vdc (2 sec.)
IP Protection	IP20 up to 160 A, IP00 over
Overload capability	4 x Rated current (Switch ON) 2 x In 10 seconds 1.5 In for 10 minutes
Climatic class	-40 / +85° C
MTBF at 40°C	250.000 Hrs

ELECTRICAL CHARACTERISTICS

FINHRM5	Rated Current 50° C	Rated Power (KW)		Power Loss (W)		LINE			PE	
		400 Vac	480 Vac	400 Vac	480 Vac	Solid Cable (mm ²)	Stranded Cable (mm ²)	Terminal Torque (mm ²)	d (mm)	Torque (Nm)
.010.M	10	4	5.5	55	80	0.2-10	0.2-6	1.2	M10	6
.016.M	16	7.5	11	105	160	0.2-10	0.2-6	1.2	M10	6
.032.M	32	15	18.5	210	275	0.2-10	0.2-6	1.2	M10	6
.045.M	45	22	30	273	370	0.5-10	0.5-10	1.8	M10	6
.080.M	80	40	48	398	475	0.5-10	0.5-10	1.8	M10	6
.120.M	120	60	72	492	672	6-35	4-25	4.5	M10	6
.160.M	160	80	96	590	710	10-50	10-50	4.0	M10	6

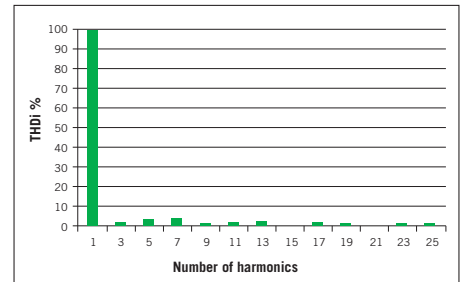
CONNECTIONS

TYPICAL MEASUREMENT



Typical measurement without FINHRM5

FINHRM5	Rated Current 50° C	Rated Power (KW)		Power Loss (W)		LINE		PE	
		400 Vac	480 Vac	400 Vac	480 Vac	l (mm)	Torque (Nm)	(mm)	Torque (Nm)
.210.B	210	105	126	610	750	M12	20	M10	18
.260.B	260	130	160	780	940	M12	20	M10	18
.320.B	320	160	200	940	1150	M8	14	M10	18
.400.B	400	200	241	980	1200	M8	14	M10	18
.460.B	460	230	277	1280	1410	M8	14	M10	18
.600.B	600	280	360	1480	1750	M8	14	M10	18
.750.B	750	360	440	1690	1920	M8	14	M10	18
.800.B	800	380	460	1730	1970	M12	25	M10	18



Typical measurement with FINHRM5

MECHANICAL DIMENSIONS mm

FINHRM5.010.M	A	B	C	D	E	F	G	H	Weight Kg.	Case
H5D.010.M	240	200	130	100	210	-	258	8	16.2	1
H5R.010.M	180	150	120	90	160	-	208	8	9.2	1
FINC.010.M *	260	100	135	120	210	104	5	-	2	1

FINHRM5.016.M	A	B	C	D	E	F	G	H	Weight Kg.	Case
H5D.016.M	240	200	130	95	210	-	275	8	28	2
H5R.016.M	180	150	120	90	156	-	205	8	16	2
FINC.016.M *	260	100	135	120	210	104	5	6	4	2

FINHRM5.032.M	A	B	C	D	E	F	G	H	Weight Kg.	Case
H5D.032.M	300	250	150	110	260	180	334	8	31	3
H5R.032.M	240	200	130	100	210	160	270	8	19	3
FINC.032.M *	300	120	135	120	320	104	5	-	6	3

FINHRM5.045.M	A	B	C	D	E	F	G	H	Weight Kg.	Case
H5D.045.M	300	250	150	110	260	180	334	8	44	4
H5R.045.M	240	200	130	100	210	160	270	8	31	4
FINC.045.M *	300	120	135	120	320	104	5	-	7	4

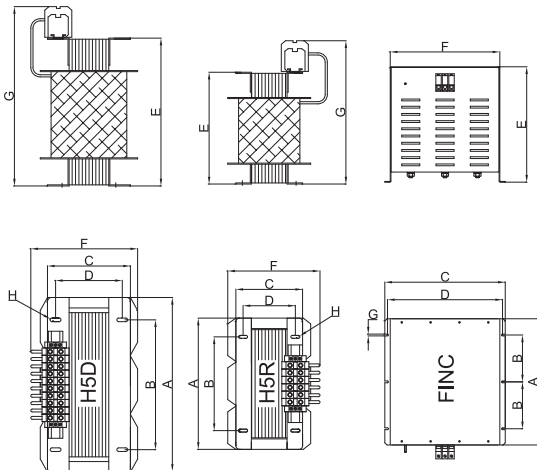
FINHRM5.080.M	A	B	C	D	E	F	G	H	Weight Kg.	Case
H5D.080.M	360	260	185	145	310	220	397	8	65	5
H5R.080.M	360	260	155	115	310	190	397	8	46	5
FINC.080.M *	350	130	135	120	380	104	5	-	8	5

FINHRM5.120.M	A	B	C	D	E	F	G	H	Weight Kg.	Case
H5D.120.M	480	360	230	185	410	320	505	10	120	6
H5R.120.M	360	260	185	145	310	270	410	8	68	6
FINC.120.M *	350	130	334	319	320	304	5	-	15	6

FINHRM5.160.M	A	B	C	D	E	F	G	H	Weight Kg.	Case
H5D.160.M	480	360	230	185	410	270	505	10	123	7
H5R.160.M	480	360	200	155	410	240	505	10	87	7
FINC.160.M *	350	130	234	219	380	204	5	-	16	7

* 60Hz option available, FINC.xxx.M-60

CASE 1, 2, 3, 4, 5, 6, 7



MECHANICAL DIMENSIONS mm

FINHRM5.210.B	A	B	C	D	E	F	G	H	I	Weight Kg.	Case
H5D.210.B	480	360	260	215	420	310	50x5	10	12	154	8
H5R.210.B	480	360	230	185	420	280	30x7	10	12	119	8
FINC.210.M *	350	130	334	319	380	5	9	16	-	18	8

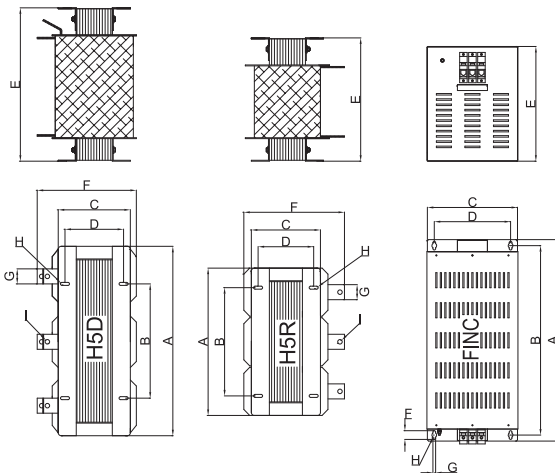
FINHRM5.260.B	A	B	C	D	E	F	G	H	I	Weight Kg.	Case
H5D.260.B	480	360	280	230	420	340	50x5	10	12	172	9
H5R.260.B	480	360	230	185	420	300	50x5	10	12	122	9
FINC.260.M *	670	630	300	254	382	29	9	16	-	30	9

FINHRM5.320.B	A	B	C	D	E	F	G	H	I	Weight Kg.	Case
H5D.320.B	600	380	230	185	520	330	50x5	10	15	195	10
H5R.320.B	480	360	240	195	420	280	50x5	10	15	130	10
FINC.320.M *	670	630	300	254	382	29	9	16	-	33	10

FINHRM5.400.B	A	B	C	D	E	F	G	H	I	Weight Kg.	Case
H5D.400.B	600	380	260	220	520	360	60x5	10	15	256	11
H5R.400.B	480	360	260	210	420	320	50x5	10	15	158	11
FINC.400.M *	670	630	300	254	382	29	9	16	-	35	11

* 60Hz option available, FINC.xxx.M-60

CASE 8, 9, 10, 11



MECHANICAL DIMENSIONS mm

FINHRM5.480.B	A	B	C	D	E	F	G	H	I	J	Weight Kg.	Case
H5D.480.B	600	380	280	230	520	330	60x5	10	15	-	285	12
H5R.480.B	480	360	280	230	420	360	60x5	10	15	-	178	12
FINC.480.B*	800	760	300	254	382	29	9	16	9	25x10	40	12

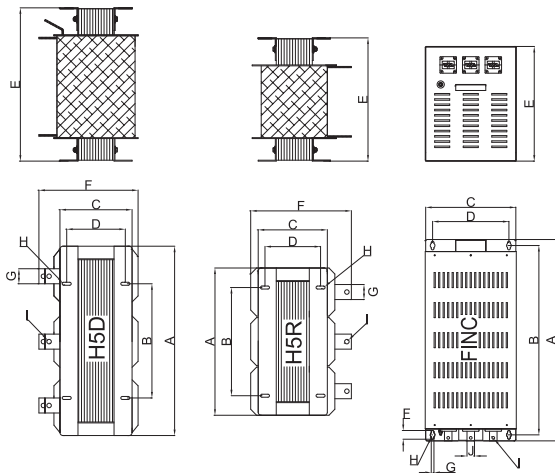
FINHRM5.600.B	A	B	C	D	E	F	G	H	I	J	Weight Kg.	Case
H5D.600.B	660	540	275	230	610	320	60x5	10	15	-	315	13
H5R.600.B	620	380	255	210	510	300	60x5	10	15	-	240	13
FINC.600.B*	800	760	300	254	382	29	9	16	9	25x10	45	13

FINHRM5.750.B	A	B	C	D	E	F	G	H	I	J	Weight Kg.	Case
H5D.750.B	660	540	320	240	650	350	50x10	12	-	-	400	14
H5R.750.B	540	420	300	230	670	330	60x5	12	-	-	250	14
FINC.750.B*	750	710	585	540	382	29	9	16	11	30x15	47	14

FINHRM5.800.B	A	B	C	D	E	F	G	H	I	J	Weight Kg.	Case
H5D.800.B	660	540	320	240	700	420	50x10	10	12	-	410	15
H5R.800.B	660	420	300	230	480	360	60x5	10	12	-	260	15
FINC.800.B*	750	710	585	540	382	29	9	16	11	30x15	48	15

* 60Hz option available, FINC.xxx.M-60

CASE 12, 13, 14, 15





Active harmonic filter with excellent attenuation of current harmonic distortion

Datasheet 3/2017

APPROVALS:

FINHRMA.(050 - 150)
FEATURES

- Advanced digital control
- Rack unit or wall mounting installation
- Modular design
- Remote control RS485 standard (Modbus-Profibus optional)

BENEFITS

- Complete protection for overvoltage, under voltage, over current and over heating
- Unaffected by network conditions
- Touch screen LCD HMI
- Reduces THD to 5%

MARKETS

- Variable frequency drives
- Commercial buildings
- Oil and water plants
- Process automation
- End-user facilities

ORDERING CODE

FINHRMA	.090.	5	3F	R	D
Model	Current (A)	4 = 400V	3F = 3phase	R = Rack	D = with HMI
		5 = 480V	4F = 3phase with neutral	W = Wall	C = without HMI
		6 = 600V			
		7 = 690V			

ATTENUATION INDICATOR

High	Very High	Excellent

TECHNICAL SPECIFICATIONS

Nominal voltage	400 / 690 Vac
Frequency	50 – 60 Hz -5 / +3%
Reactive power compensation	25 to 150
Overall efficiency	>97%
Power grid structure	3-phase, 3-phase plus neutral
Current transformer	150:5 ~ 10,000:5
Harmonic filtering range	2 nd to 50th orders
Reaction time	<50 us
Overall response time	<5 ms
Switching frequency	20 KHz
Communication ports	RS485
Communication protocols	Modbus, TCP/IP
Module display interface	4.3 inch LCD touch screen
Optional external display interface	8.0 inch LCD touch screen (FINHMI8.0)
Altitude	1500m Over power decreases by 1% every 100m
Operating temperature	-10°C / + 40°C
Protection class	IP 20
Noise level	<56 dB
Color	Ral 7035, Black

ELECTRICAL CHARACTERISTICS

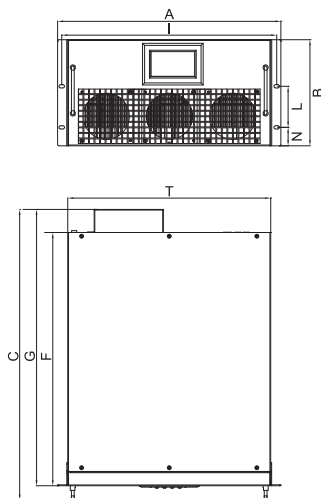
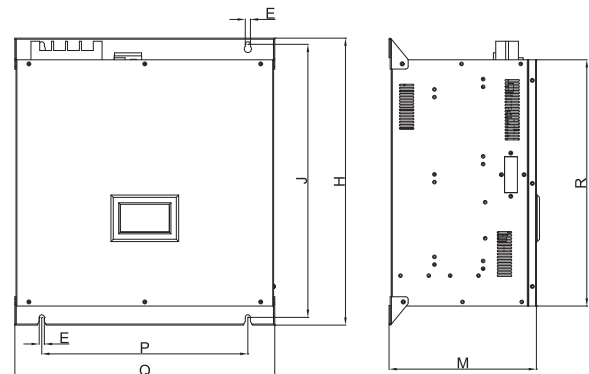
FINHRMA	Rated Current (A)	Rated Voltage (Vac)	Power Grid Structure	Cooling Mode	Response Time
.025.4.X.Y.Z	25	400 (-40%+15%)	3P3W ; 3P4W	Air 75L/sec	<5ms
.050.4.X.Y.Z	50	400 (-40%+15%)	3P3W ; 3P4W	Air 75L/sec	<5ms
.050.5.X.Y.Z	50	480 (-20%+15%)	3P3W ; 3P4W	Air 359L/sec	<5ms
.050.6.X.Y.Z	50	600 (-30%+15%)	3P3W ; 3P4W	Air 359L/sec	<5ms
.075.4.X.Y.Z	75	400 (-40%+15%)	3P3W ; 3P4W	Air 359L/sec	<5ms
.075.5.X.Y.Z	75	480 (-20%+15%)	3P3W ; 3P4W	Air 359L/sec	<5ms
.075.6.X.Y.Z	75	600 (-30%+15%)	3P3W ; 3P4W	Air 359L/sec	<5ms
.090.5.X.Y.Z	90	480 (-20%+15%)	3P3W ; 3P4W	Air 359L/sec	<5ms
.090.6.X.Y.Z	90	600 (-30%+15%)	3P3W ; 3P4W	Air 359L/sec	<5ms
.100.4.X.Y.Z	100	400 (-40%+15%)	3P3W ; 3P4W	Air 300L/sec	<5ms
.150.4.X.Y.Z	150	400 (-40%+15%)	3P3W ; 3P4W	Air 405L/sec	<5ms

X = power grid structure Y = mounting type Z = HMI display

208Vac version available

MECHANICAL DIMENSIONS mm

FINHRMA	Rack mounted									Wall mounted							Weight Kg.
	A	B	C	F	G	I	L	N	T	H	J	E	P	Q	M	R	
.025.4.X.Y.Z	486	150	490.5	450.5	-	466	89	40	440	470	446	10	360	440	150	420	30
.050.4.X.Y.Z	484	190	621	540	590	466	89	40	440	585	561	10	360	440	195	535	35
.050.5.X.Y.Z	544	250	655	590	640	526	140	55	520	665	638	10	400	505	253	590	48
.050.6.X.Y.Z	544	250	655	590	640	526	140	55	520	665	638	10	400	505	253	590	48
.075.4.X.Y.Z	500	190	626	550	600	478	89	40	500	584	560	12	400	500	191	510	50
.075.5.X.Y.Z	544	250	655	590	640	526	140	55	520	665	638	10	400	505	253	590	35
.075.6.X.Y.Z	544	250	655	590	640	526	140	55	520	665	638	10	400	505	253	590	66
.090.5.X.Y.Z	544	250	655	590	640	526	140	55	520	665	638	10	400	505	253	590	67
.090.6.X.Y.Z	544	250	655	590	640	526	140	55	520	665	638	10	400	505	253	590	67
.100.4.X.Y.Z	484	230	630	550	600	466	89	40	440	625	576	10	360	440	235	550	36
.150.4.X.Y.Z	540	269	590	510	560	524	180	44.5	500	557	530	10	400	505	286	478	48

RACK MOUNTED

WALL MOUNTED




Static var generator with excellent attenuation of inductive and reactive power

Datasheet 3/2017

APPROVALS:

FINSVG.(030 - 100)
FEATURES

- No capacitor bank
- Controls PF compensation
- Unaffected by harmonic resonance
- High speed response

BENEFITS

- Compensation from 30 KVAR
- Compensation for inductive and capacitive reactive power
- Modular design
- Remote control RS485 standard (Modbus-Profibus optional)

MARKETS

- Soft start motors
- DC motors
- Oil and water plants
- Process automation
- End-user facilities

ORDERING CODE

FINSVG	.100	.4	.4F	.W	.D
Model	Kvar	4 = 400V	3F = 3phase	R = Rack mount	D = with HMI
		5 = 480V	4F = 3phase with neutral	W = Wall mount	C = without HMI
		6 = 600V			
		7 = 690V			

ATTENUATION INDICATOR

High	Very High	Excellent

TECHNICAL SPECIFICATIONS

Nominal voltage	400 / 690 Vac
Frequency	50 – 60 Hz -5 / +3%
Reactive power compensation	30-100 Kvar
PF Compensation	0.99
Overall efficiency	>97%
Power grid structure	3-phase, 3-phase plus neutral
Current transformer	150:5 ~ 10,000:5
Reaction time	<50 us
Overall response time	<5 ms
Switching frequency	20 KHz
Communication ports	RS485
Communication protocols	Modbus, TCP/IP
Module display interface	4.3 inch LCD touch screen
Optional external display interface	8.0 inch LCD touch screen (FINHMI8.0)
Altitude	1500m Over power decreases by 1% every 100m
Operating temperature	-10°C / + 40°C
Protection class	IP 20
Noise level	<56 dB
Color	Ral 7035, Black

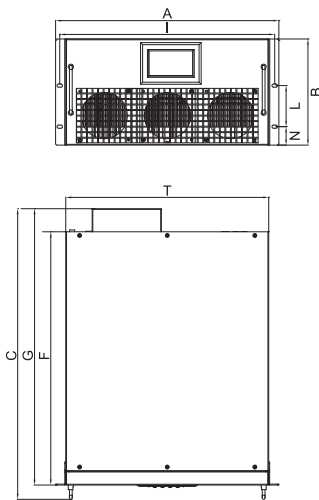
ELECTRICAL CHARACTERISTICS

FINSVG	Rated Compensation (Kvar)	Rated Voltage (Vac)	Power Grid Structure	Cooling Mode	Response Time
.030.4.X.Y.Z	30	400 (-40%+15%)	3P3W ; 3P4W	Air 75L/sec	<5ms
.040.5.X.Y.Z	40	480 (-20%+15%)	3P3W ; 3P4W	Air 359L/sec	<5ms
.050.4.X.Y.Z	50	400 (-40%+15%)	3P3W ; 3P4W	Air 75L/sec	<5ms
.063.5.X.Y.Z	63	480 (-20%+15%)	3P3W ; 3P4W	Air 359L/sec	<5ms
.050.6.X.Y.Z	50	600 (-30%+15%)	3P3W ; 3P4W	Air 359L/sec	<5ms
.075.5.X.Y.Z	75	480 (-20%+15%)	3P3W ; 3P4W	Air 359L/sec	<5ms
.075.6.X.Y.Z	75	600 (-30%+15%)	3P3W ; 3P4W	Air 359L/sec	<5ms
.090.6.X.Y.Z	90	600 (-30%+15%)	3P3W ; 3P4W	Air 359L/sec	<5ms
.100.4.X.Y.Z	100	400 (-40%+15%)	3P3W ; 3P4W	Air 300L/sec	<5ms

X = power grid structure Y = mounting type Z = HMI display

MECHANICAL DIMENSIONS mm

FINSVG	Rack mounted									Wall mounted							Weight Kg.
	A	B	C	F	G	I	L	N	T	H	J	E	P	Q	M	R	
.030.4.X.Y.Z	540	190	555	510	540	524	105	42.5	500	560	536	10	360	500	191	510	30
.040.5.X.Y.Z	544	250	655	590	640	526	140	55	520	665	638	10	400	505	253	590	35
.050.4.X.Y.Z	540	190	555	510	540	524	105	42.5	500	560	536	10	360	500	191	510	48
.063.5.X.Y.Z	544	250	655	590	640	526	140	55	520	665	638	10	400	505	253	590	48
.050.6.X.Y.Z	544	250	655	590	640	526	140	55	520	665	638	10	400	505	253	590	50
.075.5.X.Y.Z	544	250	655	590	640	526	140	55	520	665	638	10	400	505	253	590	35
.075.6.X.Y.Z	544	250	655	590	640	526	140	55	520	665	638	10	400	505	253	590	66
.090.6.X.Y.Z	544	250	655	590	640	526	140	55	520	665	638	10	400	505	253	590	67
.100.4.3F.Y.Z	540	269	550	470	520	521	180	44.5	500	557	530	10	400	505	286	478	67
.100.4.4F.Y.Z	540	269	550	470	520	521	180	44.5	500	553	518	10	400	505	271	520	67

RACK MOUNTED

WALL MOUNTED
