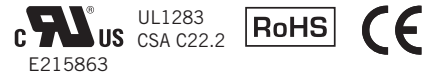




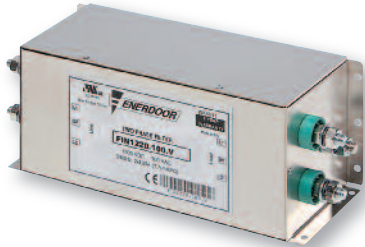
EMI/RFI DC Filter with very high attenuation for DC industrial and residential applications

Datasheet 3/2019

APPROVALS:



SCCR by UL508A



FIN1220.(005 - 280).V



FIN1220.(280 - 1750).B



FIN1220.(2000 - 3000).B

FEATURES

- Rated current from 5 to 3000A
- Very high common mode attenuation
- Very low leakage current

BENEFITS

- 5 Year warranty
- Various connections available
- Finger safe protection available

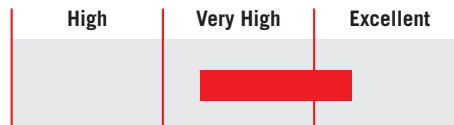
MARKETS

- Renewable energy
- Recharging stations
- AC/DC converters
- Single phase machines up to 700 Vac

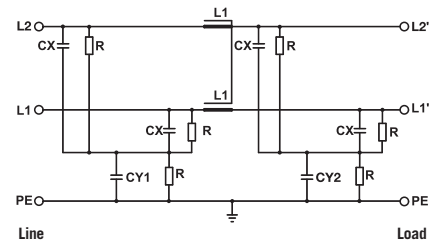
ORDERING CODE

| | | |
|---------|-------------|-------------|
| FIN1220 | .100 | .V |
| Model | Current (A) | Connection |
| | | V = Screw |
| | | B = Bus bar |

ATTENUATION INDICATOR



ELECTRIC DIAGRAM



TECHNICAL SPECIFICATIONS

| | |
|--|---|
| Nominal voltage | 0 / 1000 Vdc - 0 / 700 Vac |
| Frequency | 50 – 60 Hz |
| Rated current | 5 to 3000A |
| Potential test voltage phase to phase | 3100 Vdc (2 sec.) |
| Potential test voltage phase to ground | 3400 Vdc (2 sec.) |
| Leakage current normal conditions | < 3 mA * |
| Leakage current worst conditions | < 10 mA |
| IP Protection | IP20 up to 280A IP00 over 280A IP20 available with protection FINPRT |
| 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 |

* Voltage 230 Vac phase to ground 50Hz / 40°C

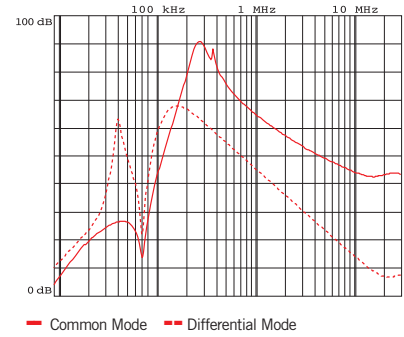
ELECTRICAL CHARACTERISTICS

| FIN1220 | Rated Current 40°C | Rated Current 50°C | Power Loss (W) |
|---------|--------------------|--------------------|----------------|
| .005.V | 5 | 4 | 5 |
| .010.V | 10 | 8 | 7 |
| .016.V | 16 | 14 | 14 |
| .030.V | 30 | 27 | 11 |
| .050.V | 50 | 46 | 10 |
| .080.V | 80 | 75 | 39 |
| .100.V | 100 | 90 | 45 |
| .130.V | 130 | 110 | 49 |
| .150.V | 150 | 140 | 69 |
| .180.V | 180 | 165 | 77 |
| .200.V | 200 | 190 | 85 |
| .250.V | 272 | 250 | 87 |
| .280.V | 297 | 280 | 77 |
| .280.B | 330 | 320 | 76 |
| .320.B | 330 | 320 | 77 |
| .360.B | 390 | 360 | 98 |
| .400.B | 435 | 400 | 102 |
| .500.B | 545 | 500 | 96 |
| .600.B | 654 | 600 | 102 |
| .750.B | 800 | 750 | 88 |
| .900.B | 940 | 900 | 72 |
| .1000.B | 1050 | 1000 | 102 |
| .1250.B | 1290 | 1250 | 96 |
| .1500.B | 1550 | 1500 | 108 |
| .1600.B | 1650 | 1600 | 115 |
| .1750.B | 1800 | 1750 | 120 |
| .2000.B | 2050 | 2000 | 122 |
| .2250.B | 2300 | 2250 | 127 |
| .2500.B | 2550 | 2500 | 140 |
| .3000.B | 3000 | 2950 | 150 |

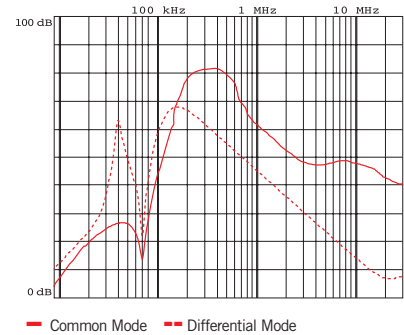
CONNECTIONS

| LINE | | PE | |
|--------|-------------|---------|-------------|
| d (mm) | Torque (Nm) | d1 (mm) | Torque (Nm) |
| M4 | 1.2 | M4 | 1.2 |
| M4 | 1.2 | M4 | 1.2 |
| M5 | 4 | M5 | 4 |
| M5 | 4 | M5 | 4 |
| M6 | 6 | M5 | 4 |
| M8 | 14 | M8 | 14 |
| M8 | 14 | M8 | 14 |
| M10 | 18 | M10 | 18 |
| M10 | 18 | M10 | 18 |
| M10 | 18 | M10 | 18 |
| M10 | 18 | M10 | 18 |
| M12 | 20 | M10 | 18 |
| M12 | 20 | M10 | 18 |
| M8 | 14 | M10 | 18 |
| M8 | 14 | M10 | 18 |
| M8 | 14 | M10 | 18 |
| M8 | 14 | M10 | 18 |
| M10 | 25 | M10 | 18 |
| M10 | 25 | M10 | 18 |
| M12 | 50 | M12 | 20 |
| M12 | 50 | M12 | 20 |
| M12 | 50 | M12 | 20 |
| M12 | 50 | M12 | 20 |
| M12 | 50 | M12 | 20 |
| M12 | 50 | M12 | 20 |
| M12 | 50 | M12 | 20 |
| M12 | 50 | M12 | 20 |
| M12 | 50 | M12 | 20 |
| M12 | 50 | M12 | 20 |

TYPICAL ATTENUATION



Typical attenuation 7A – 400A

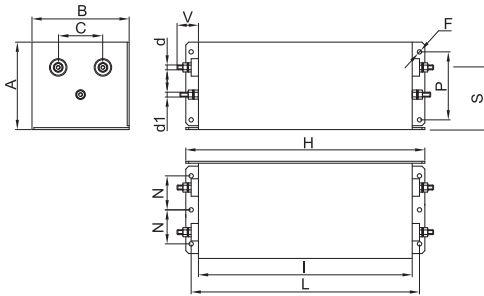


Typical attenuation 500A – 3000A

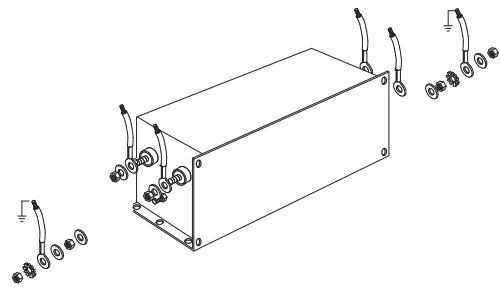
MECHANICAL DIMENSIONS mm

| FIN1220 | A | B | C | d | d1 | V | F | H | I | L | N | P | S | Weight Kg. | Case |
|---------|----|-----|-----|-----|-----|----|-----|-----|-----|-----|------|----|----|------------|------|
| .005.V | 58 | 86 | 44 | M4 | M4 | 14 | 4.5 | 186 | 160 | 176 | 30 | 40 | 38 | 2 | 1 |
| .010.V | 58 | 86 | 44 | M4 | M4 | 14 | 4.5 | 186 | 160 | 176 | 30 | 40 | 38 | 2 | 1 |
| .016.V | 90 | 100 | 46 | M5 | M5 | 28 | 4.5 | 246 | 220 | 235 | 35 | 70 | 64 | 3 | 2 |
| .030.V | 90 | 100 | 46 | M5 | M5 | 28 | 4.5 | 246 | 220 | 235 | 35 | 70 | 64 | 3 | 2 |
| .050.V | 90 | 100 | 46 | M6 | M6 | 28 | 4.5 | 246 | 220 | 235 | 35 | 70 | 64 | 3 | 3 |
| .080.V | 90 | 100 | 40 | M8 | M8 | 28 | 4.5 | 246 | 220 | 235 | 35 | 70 | 69 | 3 | 4 |
| .100.V | 90 | 100 | 40 | M8 | M8 | 28 | 4.5 | 246 | 220 | 235 | 35 | 70 | 69 | 3 | 4 |
| .130.V | 90 | 185 | 120 | M10 | M10 | 29 | 6.5 | 356 | 320 | 340 | 77.5 | 70 | 60 | 5 | 5 |
| .150.V | 90 | 185 | 120 | M10 | M10 | 29 | 6.5 | 356 | 320 | 340 | 77.5 | 70 | 60 | 5 | 5 |
| .180.V | 90 | 185 | 120 | M10 | M10 | 29 | 6.5 | 356 | 320 | 340 | 77.5 | 70 | 60 | 5 | 5 |
| .200.V | 90 | 185 | 120 | M10 | M10 | 29 | 6.5 | 356 | 320 | 340 | 77.5 | 70 | 60 | 5 | 5 |
| .250.V | 90 | 220 | 120 | M12 | M12 | 30 | 6.5 | 356 | 320 | 340 | 95 | 70 | 60 | 7.5 | 6 |
| .280.V | 90 | 220 | 120 | M12 | M12 | 30 | 6.5 | 356 | 320 | 340 | 95 | 70 | 60 | 7.5 | 6 |

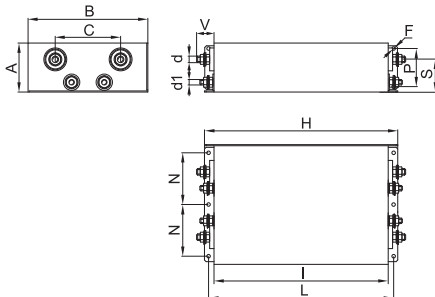
CASE 1, 2, 3, 4



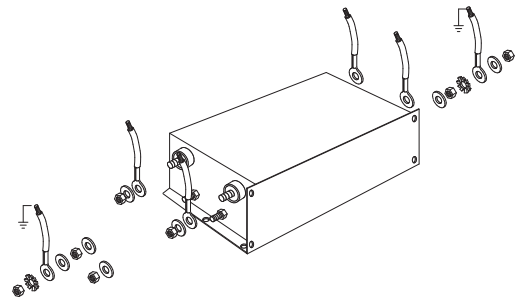
ASSEMBLY CONNECTION "V"



CASE 5, 6



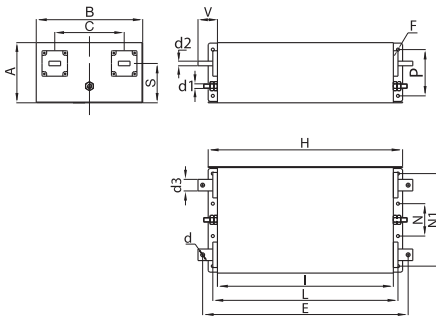
ASSEMBLY CONNECTION "V"



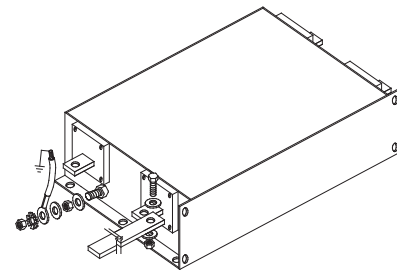
MECHANICAL DIMENSIONS mm

| FIN1220 | A | B | C | d | d1 | d2 | d3 | V | F | H | I | L | N | N1 | P | S | Weight Kg. | Case |
|---------|-----|-----|-----|-----|-----|----|----|-----|-----|-----|-----|-----|-----|-----|-----|-------|------------|------|
| .280.B | 90 | 220 | 120 | M8 | M10 | 6 | 20 | 42 | 6.5 | 356 | 320 | 340 | 50 | 190 | 70 | 55 | 7.5 | 7 |
| .320.B | 90 | 220 | 120 | M8 | M10 | 6 | 20 | 42 | 6.5 | 356 | 320 | 340 | 50 | 190 | 70 | 55 | 7.5 | 7 |
| .360.B | 130 | 230 | 150 | M8 | M10 | 10 | 25 | 42 | 6.5 | 420 | 380 | 400 | 70 | 200 | 85 | 85 | 10 | 8 |
| .400.B | 130 | 230 | 150 | M8 | M10 | 10 | 25 | 42 | 6.5 | 420 | 380 | 400 | 70 | 200 | 85 | 85 | 10 | 8 |
| .500.B | 130 | 230 | 150 | M8 | M10 | 10 | 25 | 42 | 6.5 | 420 | 380 | 400 | 70 | 200 | 85 | 85 | 10 | 8 |
| .600.B | 130 | 230 | 150 | M10 | M10 | 15 | 30 | 48 | 6.5 | 510 | 450 | 480 | 70 | 200 | 100 | 85 | 15.5 | 9 |
| .750.B | 130 | 230 | 150 | M10 | M10 | 15 | 30 | 48 | 6.5 | 510 | 450 | 480 | 70 | 200 | 100 | 85 | 15.5 | 9 |
| .900.B | 160 | 250 | 140 | M12 | M12 | 20 | 40 | 94 | 8.5 | 510 | 450 | 480 | 70 | 200 | 110 | 110 | 23 | 10 |
| .1000.B | 160 | 250 | 140 | M12 | M12 | 20 | 40 | 94 | 8.5 | 510 | 450 | 480 | 70 | 200 | 110 | 110 | 23 | 10 |
| .1250.B | 160 | 250 | 140 | M12 | M12 | 20 | 40 | 94 | 8.5 | 510 | 450 | 480 | 70 | 200 | 110 | 110 | 23 | 10 |
| .1500.B | 180 | 300 | 200 | M12 | M12 | 20 | 60 | 97 | 8.5 | 560 | 500 | 530 | 80 | 250 | 130 | 117 | 27 | 11 |
| .1600.B | 180 | 300 | 200 | M12 | M12 | 20 | 60 | 97 | 8.5 | 560 | 500 | 530 | 80 | 250 | 130 | 117 | 27 | 11 |
| .1750.B | 180 | 300 | 200 | M12 | M12 | 20 | 60 | 97 | 8.5 | 560 | 500 | 530 | 80 | 250 | 130 | 117 | 27 | 11 |
| .2000.B | 225 | 350 | 200 | M12 | M12 | 25 | 80 | 100 | 8.5 | 610 | 550 | 580 | 150 | - | - | 112.5 | 45 | 12 |
| .2250.B | 225 | 350 | 200 | M12 | M12 | 25 | 80 | 100 | 8.5 | 610 | 550 | 580 | 150 | - | - | 112.5 | 45 | 12 |
| .2500.B | 225 | 350 | 200 | M12 | M12 | 25 | 80 | 100 | 8.5 | 610 | 550 | 580 | 150 | - | - | 112.5 | 45 | 12 |
| .3000.B | 225 | 350 | 200 | M12 | M12 | 25 | 80 | 100 | 8.5 | 610 | 550 | 580 | 150 | - | - | 112.5 | 45 | 12 |

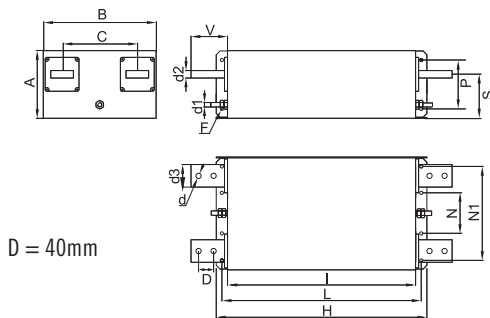
CASE 7, 8, 9



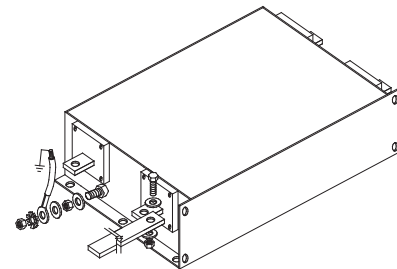
ASSEMBLY CONNECTION "B"



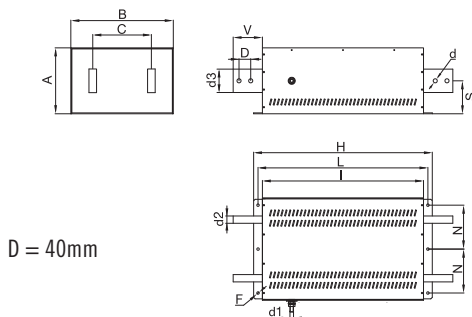
CASE 10, 11



ASSEMBLY CONNECTION "B"



CASE 12



ASSEMBLY CONNECTION "B"

