



MCR HARDWIRED SERIES: LINE CONDITIONING WITH VOLTAGE REGULATION

The MCR Hardwired Series provides excellent noise filtering and surge protection to safeguard connected equipment from damage, degradation or misoperation. Combined with the excellent voltage regulation inherent to SolaHD's ferroresonant design, the MCR can increase the actual Mean Time Between Failure (MTBF) of protected equipment. The MCR is a perfect choice where dirty power, caused by impulses, swell, sags, brownouts and waveform distortion can lead to costly downtime because of damaged equipment.

SUITABLE APPLICATIONS

- Industrial automation and control equipment PLCs
- Machine tools
- Computer loads and electronic equipment
- Robotics
- Semiconductor fabrication equipment

FEATURES

- Superior voltage regulation of $\pm 5\%$ for 50 Hz units, $\pm 3\%$ for 60 Hz units
- Surge protection tested to ANSI/IEEE C62.41, Class A & B waveform
- Harmonic filtering
- Hardwired
- Acts as a step-up/step-down transformer
- Galvanic isolation provides exceptional circuit protection
- 25 year typical mean time between failure
- No maintenance required

CERTIFICATIONS AND COMPLIANCES

ALL MODELS

- RoHS Compliant

Selection Table: Group 2

- US Listed (120VA-750VA Units) (1-5kVa ("C8") Units)
- UL 1012, CSA C22.2 No. 107.1
- Listed (7.5kVA-15kVA Units) (1-5kVa ("8") Units)
- UL 1012

Selection Table: Group 3

- US Listed (500VA-3kVA Units)
- UL 1012, CSA C22.2 No. 107.1
- Certified (5kVA-15kVA Units)
- CSA C22.2 No. 66

Selection Table: Group 4

- US Listed
- UL 1012, CSA C22.2 No. 107.1

Selection Tables: Single Phase
Group 2 – MCR Series, 60 Hz

| VA | Catalog Number | Voltage Input | Voltage Output | Height in (mm) | Width in (mm) | Depth in (mm) | Ship Weight lbs (kg) | Design Style | Elec Conn |
|-------------------|--------------------|--------------------|----------------|----------------|---------------|---------------|----------------------|--------------|-----------|
| 120 | 63-23-112-4 | 120, 208, 240, 480 | 120 | 9 (229) | 4 (102) | 5 (127) | 15 (7) | 1 | D |
| 250 | 63-23-125-4 | 120, 208, 240, 480 | 120 | 10 (254) | 6 (152) | 8 (203) | 27 (12) | 1 | D |
| 500 | 63-23-150-8 | 120, 208, 240, 480 | 120, 208, 240 | 13 (330) | 9 (229) | 7 (178) | 37 (17) | 1 | E |
| 750 | 63-23-175-8 | 120, 208, 240, 480 | 120, 208, 240 | 14 (356) | 9 (229) | 7 (178) | 52 (24) | 1 | E |
| 1000 [Ⓞ] | 63-23-210-8 | 120, 208, 240, 480 | 120, 208, 240 | 17 (432) | 9 (229) | 7 (178) | 62 (28) | 1 | E |
| 1500 [Ⓞ] | 63-23-215-8 | 120, 208, 240, 480 | 120, 208, 240 | 17 (432) | 13 (330) | 9 (229) | 95 (43) | 1 | E |
| 2000 [Ⓞ] | 63-23-220-8 | 120, 208, 240, 480 | 120, 208, 240 | 18 (457) | 13 (330) | 9 (229) | 109 (49) | 1 | E |
| 3000 [Ⓞ] | 63-23-230-8 | 120, 208, 240, 480 | 120, 208, 240 | 19 (483) | 13 (330) | 9 (229) | 142 (64) | 1 | E |
| 5000 [Ⓞ] | 63-23-250-8 | 120, 208, 240, 480 | 120, 208, 240 | 28 (711) | 13 (330) | 9 (229) | 222 (101) | 1 | E |
| 7500 | 63-28-275-8 | 208, 240, 480 | 120, 208, 240 | 27 (686) | 26 (660) | 9 (229) | 362 (164) | 2 | F |
| 10000 | 63-28-310-8 | 208, 240, 480 | 120, 208, 240 | 28 (711) | 26 (660) | 9 (229) | 446 (202) | 2 | F |
| 15000 | 63-28-315-8 | 208, 240, 480 | 120, 208, 240 | 28 (711) | 38 (965) | 10 (254) | 710 (322) | 3 | F |

[Ⓞ] Canadian option: US units must be ordered by changing "8" (UL only) to "C8". Dimensions are approximate. See user manual for exact dimensions.

SOLAHD

For product information:
www.solahd.com
1.800.377.4384



Selection Tables: Single Phase
Group 3 – MCR Series, 60 Hz

| VA | Catalog Number | Voltage Input | Voltage Output | Height in (mm) | Width in (mm) | Depth in (mm) | Ship Weight lbs (kg) | Design Style | Elec Conn |
|-------|----------------|--------------------|----------------|----------------|---------------|---------------|----------------------|--------------|-----------|
| 500 | 63-31-150-8 | 600 | 120, 208, 240 | 13 (330) | 9 (229) | 7 (178) | 38 (17) | 1 | B |
| 1000 | 63-32-210-8 | 600 | 120, 208, 240 | 17 (432) | 9 (229) | 7 (178) | 62 (28) | 1 | B |
| 2000 | 63-32-220-8 | 600 | 120, 208, 240 | 18 (457) | 13 (330) | 10 (254) | 109 (49) | 1 | B |
| 3000 | 63-32-230-8 | 600 | 120, 208, 240 | 19 (483) | 13 (330) | 10 (254) | 142 (64) | 1 | B |
| 5000 | 63-29-250-8 | 208, 240, 480, 600 | 120, 208, 240 | 28 (711) | 13 (330) | 10 (254) | 221 (100) | 1 | A |
| 7500 | 63-29-275-8 | 208, 240, 480, 600 | 120, 208, 240 | 27 (686) | 25 (635) | 10 (254) | 360 (163) | 2 | A |
| 10000 | 63-29-310-8 | 208, 240, 480, 600 | 120, 208, 240 | 28 (711) | 25 (635) | 10 (254) | 441 (200) | 2 | A |
| 15000 | 63-29-315-8 | 208, 240, 480, 600 | 120, 208, 240 | 28 (711) | 38 (965) | 10 (254) | 706 (320) | 3 | A |

Group 4 – MCR Series, 50 Hz (±5% output voltage regulation)

| VA | Catalog Number | Voltage Input | Voltage Output | Height in (mm) | Width in (mm) | Depth in (mm) | Ship Weight lbs (kg) | Design Style | Elec Conn |
|-------|----------------|------------------------------|--------------------|----------------|---------------|---------------|----------------------|--------------|-----------|
| 120 | 63-23-612-8 | 110, 120, 220, 240, 380, 415 | 110, 120, 220, 240 | 9 (229) | 6 (152) | 8 (203) | 24 (11) | 1 | C |
| 250 | 63-23-625-8 | 110, 120, 220, 240, 380, 415 | 110, 120, 220, 240 | 11 (279) | 6 (152) | 8 (203) | 27 (12) | 1 | C |
| 500 | 63-23-650-8 | 110, 120, 220, 240, 380, 415 | 110, 120, 220, 240 | 13 (330) | 9 (229) | 7 (178) | 40 (18) | 1 | C |
| 1000 | 63-23-710-8 | 110, 120, 220, 240, 380, 415 | 110, 120, 220, 240 | 18 (457) | 9 (229) | 7 (178) | 64 (29) | 1 | C |
| 2000 | 63-23-720-8 | 110, 120, 220, 240, 380, 415 | 110, 120, 220, 240 | 18 (457) | 13 (330) | 10 (254) | 113 (51) | 1 | C |
| 3000 | 63-23-730-8 | 110, 120, 220, 240, 380, 415 | 110, 120, 220, 240 | 27 (686) | 13 (330) | 10 (254) | 162 (73) | 1 | C |
| 5000 | 63-23-750-8 | 110, 120, 220, 240, 380, 415 | 110, 120, 220, 240 | 30 (762) | 13 (330) | 10 (254) | 266 (121) | 1 | C |
| 7500 | 63-28-775-8 | 220, 240, 380, 415 | 110, 120, 220, 240 | 28 (711) | 26 (660) | 10 (254) | 393 (178) | 2 | C1 |
| 10000 | 63-28-810-8 | 220, 240, 380, 415 | 110, 120, 220, 240 | 30 (762) | 26 (660) | 10 (254) | 490 (222) | 2 | C2 |
| 15000 | 63-28-815-8 | 220, 240, 380, 415 | 110, 120, 220, 240 | 30 (762) | 38 (965) | 10 (254) | 776 (352) | 3 | C2 |

SPECIFICATIONS

| Parameter | Condition | Value |
|-----------------------------------|--|---|
| Input | | |
| Voltage | Continuous at full load (lower input voltage possible at lighter load) | +10% to -20% of nominal |
| | For temporary surge or sags | +20% to -35% of nominal |
| Current ① | at Full Load & 80% of nominal input voltage | $I_n \cong (VA/.89)/(V_{in} \times 80\%)$ |
| Frequency | Please refer to catalog for more details. | 50 Hz or 60 Hz depending on model |
| Output ② | | |
| Line Regulation | $V_{in} > 80\%$ and $< 110\%$ of nominal | ± 5% for 50 Hz units, ± 3% for 60 Hz units |
| Overload Protection | At Nominal Input Voltage | Current limited at 1.65 times rated current |
| Output Harmonic Distortion | At full load within input range | 3% total RMS content |
| Noise Attenuation | Common Mode | 120 dB |
| | Transverse Mode | 60 dB |
| General | | |
| Efficiency | At Full Load | Up to 92% |
| Storage Temperature | Humidity <95% non-condensing | -20° to +85°C |
| Operating Temperature | Humidity <95% non-condensing | -20° to 50°C |
| Audible Noise | Full Resistive Noise | 35 dBA to 65 dBA |
| Warranty | 10 + 2 year limited warranty | |

① Consult user manual for fuse sizing.

② It is recommended that the unit run at a minimum of 40-50% load. Dimensions are approximate. Please refer to catalog for more details.



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