

AHV SERIES

THREE PHASE VERY HIGH PERFORMANCE EMI FILTER

Dual stage delta configuration

INTRODUCTION

Bookshelf design for motor drive applications requiring minimum space and convenient installation with superior performance at significant interference levels

APPLICATION

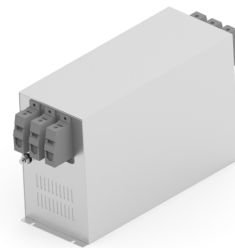
- IT power distribution network
- Three phase drives
- Renewable energy systems
- Process automation equipments
- Energy conversion devices

FEATURES

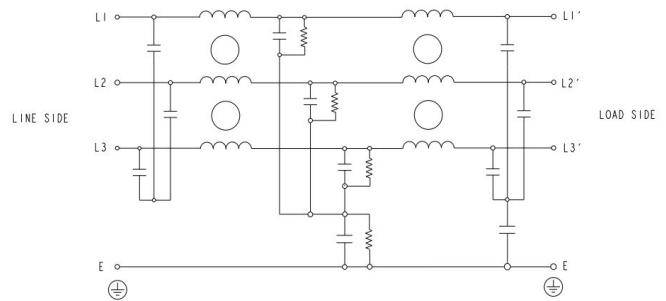
- Superior performance
- Compact
- Low leakage current
- Book shelf mounting

APPROVALS & COMPLIANCE

- UL recognized as per UL 60939-3 and CSA22.2 No 8



STANDARD



TYPICAL CIRCUIT DIAGRAM

Specifications

| Electrical Characteristics | |
|-----------------------------|--------------------------------------|
| Agency Rated Voltage | Line to Line: 760/750VAC |
| Current Ratings | 7A to 180A @ 40°C |
| Operating Frequency | 50/60Hz |
| High Potential Test Voltage | Line to Ground: 3535VDC for 1 Minute |
| | Line to Line: 3268VDC for 1 Minute |
| Overload Capability | 135% of Rated current for 15 minutes |

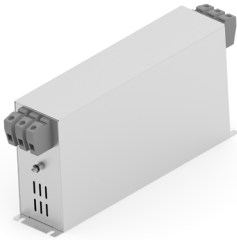
AHV Series

Dual Stage Delta Configuration

| Functional Characteristics | |
|---|--------------------------|
| Operating Temperature Range | -25°C to +85°C |
| Climatic Category | 25/85/21 |
| Termination (Depends on Current Rating) | Quick Connect 7A to 180A |
| Flammability Corresponding to | UL 94 V-0 |

| Reference Standards | |
|-------------------------|------------------------------|
| Design Corresponding to | UL 60939-3 and CSA 22.2 No 8 |

Selection Table - Standard Version



| TE Ordering Number | Catalog Number | Rated Current @40°C | Rated Voltage @40°C | Leakage Current (mA) | Weight (Kgs) | Termination |
|--------------------|----------------|---------------------|---------------------|----------------------|--------------|-------------|
| 2405080-1 | 7 AHV D BS | 7A | 760 | 5mA | 2 | 1 |
| 2405080-2 | 10 AHV D BS | 10A | 760 | 5mA | 2 | 1 |
| 2405080-3 | 16 AHV D BS | 16A | 760 | 5mA | 3 | 1 |
| 2405080-4 | 20 AHV D BS | 20A | 760 | 5mA | 3 | 1 |
| 2405080-5 | 25 AHV D BS | 25A | 760 | 5mA | 3 | 1 |
| 2405080-6 | 30 AHV D BS | 30A | 760 | 5mA | 4 | 1 |
| 2405080-7 | 42 AHV D BS | 42A | 760 | 5mA | 4 | 1 |
| 2405080-8 | 55 AHV D BS | 55A | 760 | 5mA | 4 | 1 |
| 2405080-9 | 63 AHV D BS | 63A | 760 | 6mA | 5 | 1 |
| 1-2405080-0 | 75 AHV D BS | 75A | 760 | 6mA | 5 | 1 |
| 1-2405080-1 | 80 AHV D BS | 80A | 760 | 6mA | 5 | 1 |
| 1-2405080-2 | 90 AHV D BS | 90A | 760 | 6mA | 6 | 2 |
| 1-2405080-3 | 100 AHV D BS | 100A | 760 | 6mA | 6 | 2 |
| 1-2405080-4 | 130 AHV D BS | 130A | 760 | 6mA | 7 | 3 |
| 1-2405080-5 | 150 AHV D BS | 150A | 760 | 6mA | 8 | 3 |
| 1-2405080-6 | 180 AHV D BS | 180A | 760 | 6mA | 12 | 4 |

AHV Series

Dual Stage Delta Configuration

Termination Type: Connectors Cross Section

|  | 1 | 2 | 3 | 4 |
|---|----------|---------|---------|---------|
| Range; Flexible (mm ²) | 0.5 - 16 | 10 - 25 | 16 - 50 | 35 - 95 |

Insertion Loss (Typical) – Measured in Closed 50Ω System

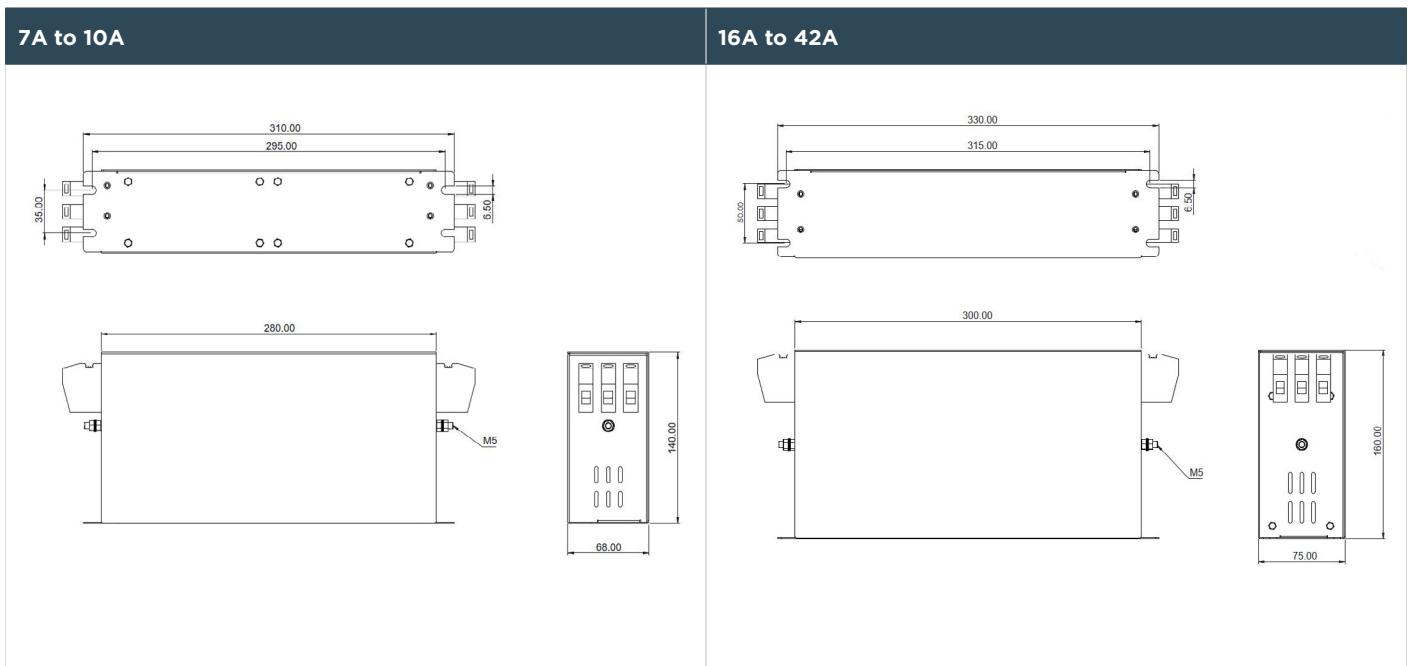
| | | Common Mode 50Ω/50Ω | | | | | | | | |
|----------------|-------|---------------------|-------|------|------|------|------|------|------|------|
| | | Frequency in MHz | | | | | | | | |
| | | 0.01 | 0.05 | 0.15 | 0.5 | 1 | 3 | 5 | 10 | 30 |
| Current Rating | 7A | 14.1 | 28.7 | 64 | 78.3 | 77 | 68.3 | 60 | 48.1 | 37.8 |
| | 10A | 12 | 21 | 60 | 80 | 70 | 62 | 56 | 45 | 25 |
| | 16A | 10.5 | 15.6 | 58.3 | 97.9 | 79.6 | 61.4 | 54 | 44.2 | 19.5 |
| | 20A | 9 | 12 | 55 | 80 | 75 | 57 | 52 | 42 | 15 |
| | 25A | 8.28 | 10.9 | 50.4 | 76.6 | 80.1 | 62.6 | 55.6 | 44.5 | 30.4 |
| | 30A | 5.6 | 7 | 35 | 60 | 68 | 57 | 44 | 32 | 18 |
| | 42A | 2.3 | 5.6 | 27.2 | 60 | 65 | 52 | 42 | 30 | 20 |
| | 55A | 1.03 | 9.65 | 25.7 | 58.9 | 73.4 | 63.4 | 56.4 | 47.6 | 44.8 |
| | 63A | 0.88 | 5.2 | 23.4 | 57 | 68 | 58 | 52 | 42 | 38 |
| | 75A | 0.75 | 3.5 | 19.5 | 51 | 62 | 55 | 48 | 35 | 22 |
| | 80A | 0.52 | 2 | 10 | 35 | 40 | 47 | 41 | 30 | 18 |
| | 90A | 0.3 | 1.2 | 6 | 28 | 41 | 50 | 40 | 28 | 20 |
| | 100A | 0.178 | 0.794 | 4.29 | 18.3 | 30.5 | 51.2 | 45.9 | 39.9 | 25.5 |
| | 130A | 0.16 | 0.9 | 4.5 | 20 | 32 | 55 | 40 | 32 | 20 |
| | 150A | 0.15 | 1.1 | 4.5 | 22 | 35 | 55 | 38 | 30 | 21 |
| 180A | 0.162 | 1.27 | 4.73 | 33.5 | 41.6 | 54.4 | 48.3 | 40.8 | 25.3 | |

AHV Series

Dual Stage Delta Configuration

| | | Differential Mode 50Ω/50Ω | | | | | | | | |
|----------------|------|---------------------------|------|------|------|-------|------|------|------|------|
| | | Frequency in MHz | | | | | | | | |
| | | 0.01 | 0.05 | 0.15 | 0.5 | 1 | 3 | 5 | 10 | 30 |
| Current Rating | 7A | 16.2 | 34.7 | 60.4 | 58.4 | 57.9 | 56.6 | 55.7 | 54.4 | 46.2 |
| | 10A | 18 | 28 | 55 | 56 | 62 | 60 | 57 | 50 | 42 |
| | 16A | 17.1 | 22.9 | 70.1 | 77.3 | 80.4 | 80.8 | 79.6 | 79.5 | 57.6 |
| | 20A | 18 | 20 | 55 | 50 | 62 | 65 | 60 | 50 | 32 |
| | 25A | 17.7 | 18.6 | 34.7 | 23.5 | 17.5 | 12.2 | 7.4 | 9.6 | 25.5 |
| | 30A | 15 | 18 | 27 | 62 | 68 | 20 | 18 | 15 | 12 |
| | 42A | 12 | 25 | 30 | 65 | 68 | 18 | 14 | 13 | 10 |
| | 55A | 18.2 | 27 | 32.6 | 80.3 | 97.4 | 78.6 | 75.3 | 72.4 | 63.8 |
| | 63A | 16 | 25 | 29 | 75 | 80 | 70 | 68 | 64 | 42 |
| | 75A | 13.6 | 22.3 | 27 | 70 | 76 | 67 | 63 | 61 | 37 |
| | 80A | 10 | 18 | 24 | 67 | 70 | 55 | 50 | 47 | 31 |
| | 90A | 12 | 22 | 28 | 57 | 60 | 50 | 45 | 38 | 24 |
| | 100A | 29 | 40.4 | 61.4 | 65 | 53.8 | 45 | 42.6 | 40.1 | 32.3 |
| | 130A | 25 | 35 | 58 | 67 | 55 | 47 | 41 | 38 | 30 |
| | 150A | 25 | 37 | 60 | 63 | 56 | 48 | 42 | 40 | 27 |
| 180A | 29 | 38.3 | 65 | 65 | 58.4 | 50.87 | 48.4 | 45.8 | 37 | |

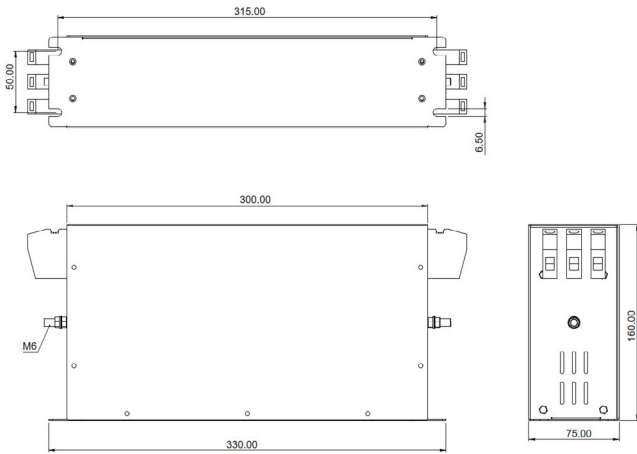
Mechanical Diagram



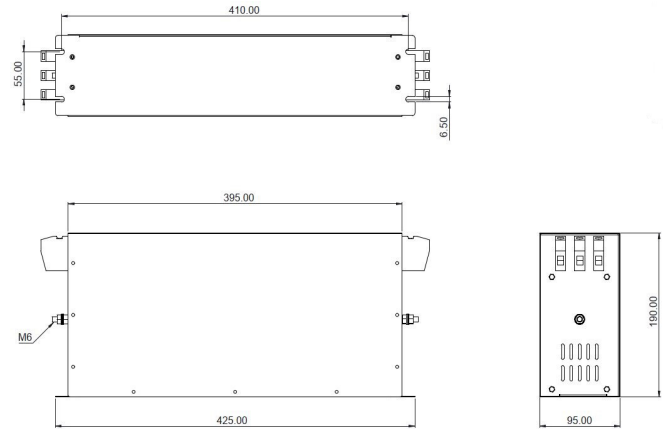
AHV Series

Dual Stage Delta Configuration

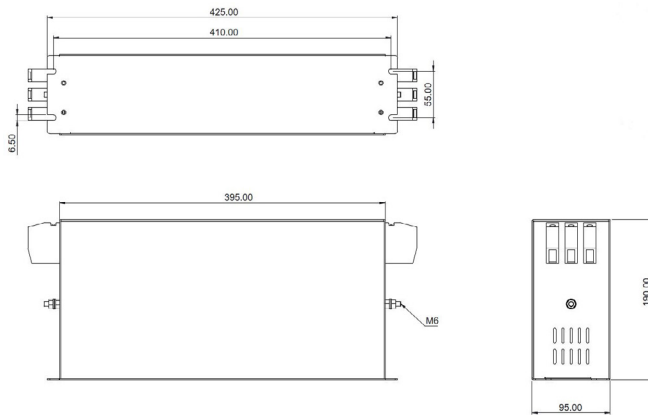
55A



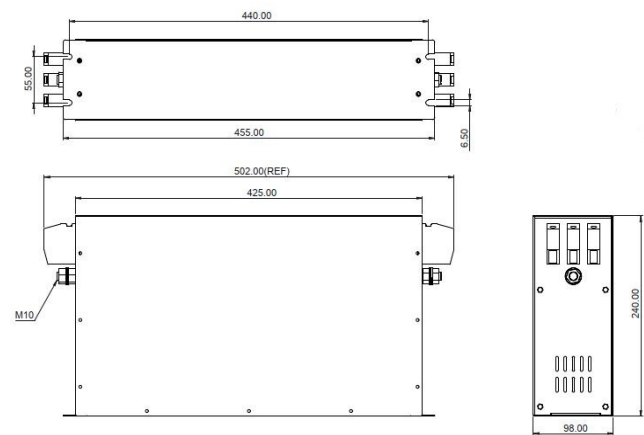
63A to 80A



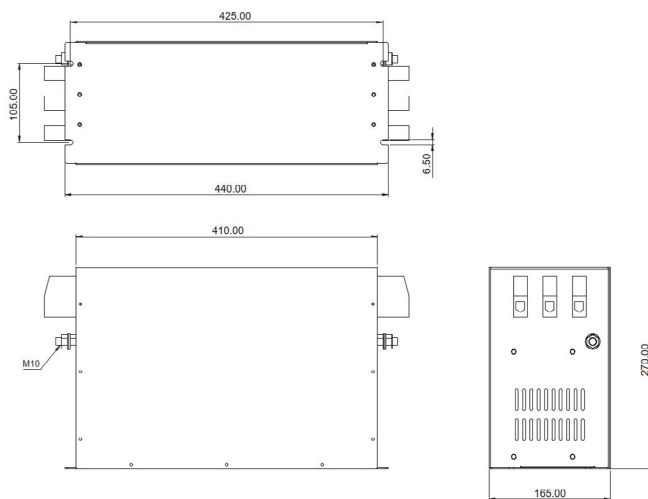
90A



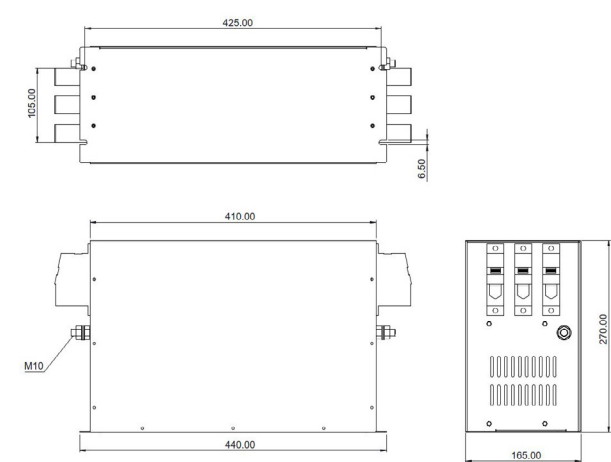
100A



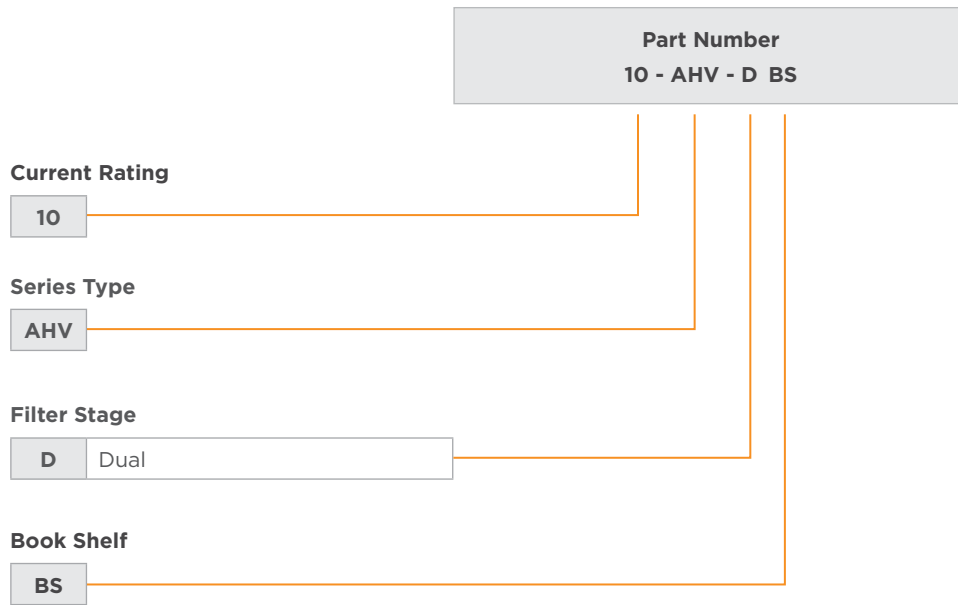
130A and 150A



180A



HOW TO ORDER



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08/22 TJ