EMI/EMC FILTER

■ Three-phase EMI/EMC filters

Rated Current	4A	6A	10A	20A	30A	40A	50A	60A	80A	100A	125A	150A	200A	250A	300A	400A	600A

JAC series — Compact Low Profile Type — 1-stage filter — General-purpose Type — Push-down-type Terminal Blocks — Selectable Leakage Current Specification

JAC series — Three-phase 500Vac 6-30A — Three-phase, High attenuation for low frequency range — High attenuation for low frequency range (150kHz to 1MHz)

Option (-H) — High magnetic permeability with a chalk coil High Attenuation for Ultra Low Frequency Range — JAC series 6-30A

DIN (Option) — JAC series 6-30A

JAC series — Three-phase 500Vac 40A 50A 60A — Three-phase, High-attenuation for low frequency range — **NEW**

Option (-H) — High magnetic permeability with a chalk coil High Attenuation for Ultra Low Frequency Range

Option (-U) — Normal Mode Improved Attenuation

TAC series / TAH series — Low Profile Type — 1-stage filter — General-purpose Type — Push-down-type Terminal Blocks — TAC/TAH Series 30A or less — Selectable Leakage Current Specification — TAC/TAH Series 50A or more

TAC series — Three-phase 500Vac 4-30A — Three-phase, High attenuation for low frequency range

TAH series — Three-phase 500Vac 4-30A — Three-phase, High attenuation for low frequency range — High attenuation for ultra low frequency range (150kHz to 1MHz)

DIN (Option) — TAC series TAH series 4-30A — High attenuation for ultra low frequency range (10kHz to 1MHz)

TAC series — Three-phase 500Vac 50A, 60A — Three-phase, High attenuation for low frequency range

TAC series — Three-phase 500Vac 80A, 100A — Three-phase, High attenuation for low frequency range

TAC series — Three-phase 500Vac 150A — Three-phase, High attenuation for low frequency range

TAC series — Three-phase 500Vac 200A, 250A, 300A — Three-phase, High attenuation for low frequency range — High attenuation for low frequency range (150kHz to 1MHz)

TAH series — Three-phase 500Vac 50A, 60A — Three-phase, High attenuation for ultra low frequency range

TAH series — Three-phase 500Vac 80A, 100A — Three-phase, High attenuation for ultra low frequency range

TAH series — Three-phase 500Vac 150A — Three-phase, High attenuation for ultra low frequency range — High attenuation for ultra low frequency range (10kHz to 1MHz)

Option (-U) — Normal Mode Improved Attenuation (Three-phase 220VAC) — TAC/TAH Series 50A or more

TBC series — 2-stage filter — High Attenuation Type — Selectable Leakage Current Specification

TBC series — Three-phase 500Vac 50A, 60A — 2-stage filter with three-phase and high attenuation for low frequency range

TBC series — Three-phase 500Vac 80A, 100A — 2-stage filter with three-phase and high attenuation for low frequency range

TBC series — Three-phase 500Vac 150A — 2-stage filter with three-phase and high attenuation for low frequency range

TBC series — Three-phase 500Vac 200A, 250A, 300A — 2-stage filter with three-phase and high attenuation for low frequency range — High attenuation for low frequency range (150kHz to 1MHz)

FTA series — Book Type — 1-stage filter — General-purpose Type — Selectable Leakage Current Specification — Ultra High Attenuation for Power Supplies in European Market

Option (-H) — High magnetic permeability with a chalk coil High Attenuation for Ultra Low Frequency Range

Option (-G) — Switch function for cutting off the line to ground capacitor at with standing test.

Option (-U) — Normal Mode Improved Attenuation

80A 100A 125A 150A — Standard — Option (-S) Hexagon Socket Head Cap Screw Type

Option (-L) — Ultra High Attenuation for Power Supplies in European Market

FTA series — Three-phase 500Vac 40A, 50A, 60A — Three-phase, Compact book type and Light weight

FTA series — Three-phase 500Vac 80A, 100A, 125A — Three-phase, Compact book type and Light weight

FTA series — Three-phase 500Vac 150A — Three-phase, Compact book type and Light weight — High attenuation for low frequency range (150kHz to 1MHz)

FTB series — 2-stage filter — High Attenuation Type — Selectable Leakage Current Specification

FTB series — Three-phase 500Vac 80A, 100A — 2-stage filter with three-phase, Compact book type and Light weight

FTB series — Three-phase 500Vac 150A — 2-stage filter with three-phase, Compact book type and Light weight

FSB series — 2-stage filter — Anti Saturable Type — Push-down-type Terminal Blocks — Selectable Leakage Current Specification

Option (-H) — High magnetic permeability with a chalk coil High Attenuation for Ultra Low Frequency Range

Option (-U) — Normal Mode Improved Attenuation

FSB series — Three-phase 500Vac 10-30A — Three-phase, Book Type Anti saturable spec improved, 2-stage filter — Anti saturable spec improved type for motor drive system

FSB series — Three-phase 500Vac 40A, 50A, 60A — Book Type, Anti saturable spec improved, 2-stage filter

FSB series — Three-phase 500Vac 80A, 100A — Book Type, Anti saturable spec improved, 2-stage filter

FSB series — Three-phase 500Vac 150A — Book Type, Anti saturable spec improved, 2-stage filter — Improving magnetic saturation for motor drive system applications

Multi-stage filter

TSD series — Three-phase 500Vac 400A, 600A — Ultra High-Attenuation Type for Motor Drive System — **NEW**

TSD series — Three-phase 500Vac 800A, 1000A — Ultra High-Attenuation Type for Motor Drive System — **NEW**

TSC series — Three-phase 500Vac 400A, 600A — Ultra High Attenuation for Power Supplies in European Market

Option (-H) — High magnetic permeability with a chalk coil High Attenuation for Ultra Low Frequency Range — *TSC series or more

Low Profile Type

Book Type

YAC series — Three-Phase Four-Wire System — 1-stage filter — General-purpose Type

YAC series — Three-Phase Four-Wire System 500Vac 25A 36A 64A 80A — High-attenuation for low frequency range — **NEW**

■ Single-phase EMI/EMC filters

Rated Current	3A	4A	6A	10A	16A	20A	30A

			General-purpose	Low Leakage Current	High Voltage Pulses High Attenuation

ES series — Screwless Type — 1-stage filter — Compact Type — Torque-management Free — Screwless — Selectable Leakage Current Specification

ESC series — Single-phase 250Vac 3-6A — Screw less and torque-management free. Compact and attenuation for low frequency range — High attenuation for low frequency range (150kHz to 1MHz)

ESM series — Single-phase 250Vac 3-16A — Screw less and torque-management free. Compact and low leakage current type — Low Leakage Current

ESP series — Single-phase 250Vac 3-16A — Screw less and torque-management free. Compact high voltage impulse common mode — High Voltage Pulses High Attenuation

DIN (Option) — ES series

EA series — Screw Type — 1-stage filter — Compact Type — Push-down-type Terminal Blocks — Selectable Leakage Current Specification

EAC series — Single-phase 250Vac 3-30A — Compact, High attenuation for low frequency range — High attenuation for low frequency range (150kHz to 1MHz)

EAM series — Single-phase 250Vac 3-30A — Compact, Low Leakage Current Type — Low Leakage Current

EAP series — Single-phase 250Vac 3-30A — Compact, High voltage impulse common mode — High Voltage Pulses High Attenuation

DIN (Option) — EA series

Installation Compatible① — Easy-to-replace screw terminals to screw less terminals by standardizing mechanical design

NA series — 1-stage filter — General-purpose Type — Push-down-type Terminal Blocks — Selectable Leakage Current Specification

NAC series — Single-phase 250Vac 4-30A — High attenuation for low frequency range — High attenuation for low frequency range (150kHz to 1MHz)

NAM series — Single-phase 250Vac 4-30A — Low Leakage Current Type — Low Leakage Current

NAP series — Single-phase 250Vac 4-30A — High Voltage Pulses High Attenuation — High Voltage Pulses High Attenuation

NAH series — Single-phase 250Vac 6-30A — High attenuation for ultra low frequency range — High attenuation for ultra low frequency range (10kHz to 1MHz)

DIN (Option) — NA series

NAC series — Single phase 277Vac 40A 50A 60A — High attenuation for low frequency range — **NEW**

NAM series — Single phase 277Vac 40A 50A 60A — Low Leakage Current Type — **NEW**

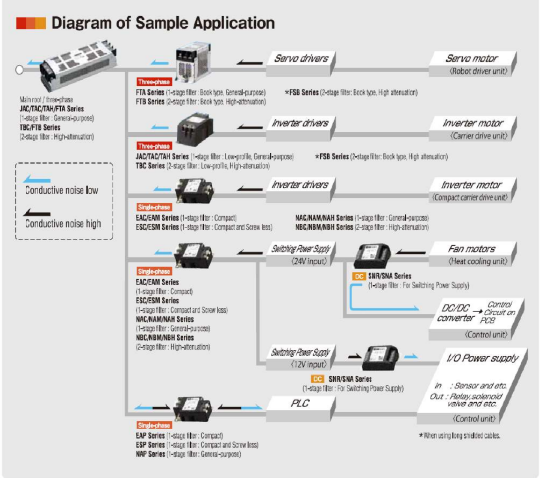NAP series — Single phase 277Vac 40A 50A 60A — High Voltage Pulses High Attenuation — **NEW**

NAH series — Single phase 277Vac 40A 50A 60A — High-attenuation for ultra low frequency range — **NEW**

Option(-F) — High input voltage (500VAC/600VDC) — Single phase 277VAC / 300VDC

NB series — 2-stage filter — High Attenuation Type — Push-down-type Terminal Blocks — Selectable Leakage Current Specification

NBC series — Single-phase 250Vac 6-30A — 2-stage filter with high attenuation for low frequency range — High attenuation for low frequency range (150kHz to 1MHz)

NBM series — Single-phase 250Vac 6-30A — 2-stage filter with low leakage current for low frequency range, high attenuation and 4kVac of withstanding voltage — Low leakage current, 4kVac of withstanding voltage

NBH series — Single-phase 250Vac 6-30A — 2-stage filter with high attenuation for ultra low frequency range and 4kVac of with standing voltage. — High attenuation for low frequency range (10kHz to 10MHz)

DIN (Option) — NB series

Installation Compatible② — Easy-to-replace high attenuation type to standardizing mechanical design

■ DC EMI/EMC Filter

Rated Current	1A	3A	6A	10A

SNA series / SNR series — Switch Mode Power Supply Ripple Noise Attenuation — 1-stage filter

SNA series — ±50Vdc 1A/3A — For ± Output of Power Supplies

SNA series — ±50Vdc 6A — For ± Output of Power Supplies

SNR series — 50Vdc 10A — For ± Output of Power Supplies (with Peak Current Function)

DIN (Option) — SNA series / SNR series

Terminal Block (Option) — SNA(6A) / SNR(10A)

■ Diagram of Sample Application

Three-phase:
- FTA Series (1-stage filter, Book type, General-purpose)
- FTB Series (2-stage filter, Book type, High attenuation)
- JAC/TAC/TAH Series (1-stage filter, Low-profile, General-purpose)
- TBC Series (2-stage filter, Low-profile, High-attenuation)
- EAC/EAM Series (1-stage filter, Compact)
- ESC/ESM Series (1-stage filter, Compact and Screw less)
- NAC/NAM/NAH Series (1-stage filter, General-purpose)
- NBC/NBM/NBH Series (2-stage filter, High-attenuation)
- EAP Series (1-stage filter, Compact)
- ESP Series (1-stage filter, Compact and Screw less)
- NAP Series (1-stage filter, General-purpose)

*FSB Series (2-stage filter, Book type, High attenuation)

Servo drivers → Servo motor (Robot driver unit)
Inverter drivers → Inverter motor (Carrier drive unit)
Inverter drivers → Inverter motor (Compact carrier drive unit)
Switching Power Supply (24V input) → Fan motors (Heat cooling unit)
DC — SNR/SNA Series (1-stage filter : For Switching Power Supply)
DC/DC converter → Control Circuit on PCB (Control unit)
Switching Power Supply (12V input)
I/O Power supply — In : Sensor and etc. Out : Relay, solenoid valves and etc.
PLC (Control unit)

Conductive noise low / Conductive noise high

*When using flag-shielded cables.

COSEL