

Electronic equipment protection for reliable operations

AEGIS DIN rail products deliver a higher level of system protection



There is an increasing need and/or requirement of surge protection in today's distribution systems. Studies have shown that the failure to protect sensitive electronic loads cost the American manufacturing, commercial and services industries more than \$39 billion per year in lost time and revenue. This underscores the need for facility-wide surge protection applied at all stages of the electrical distribution system, from the electrical service entrance down to critical single-phase loads.

Best-in-class surge protection solutions

With a broad range of devices, the Eaton AEGIS™ series is helping original equipment manufacturers (OEMs) adopt best-in-class surge and line protection solutions. These solutions meet specific requirements in global commercial and industrial applications to support reliable operation and reduce maintenance costs due to damaged electrical equipment.

Eaton's new DIN rail surge protective device (SPD) is Open Type 1 SPD listed for DIN rail mounting applications and is available in both AC and DC voltages. The pluggable multi-pole SPD comes equipped with an optional remote contact (RC) connector for remote monitoring. The metal oxide varistor (MOV)-based protection modules feature up to 50 kA per phase of surge protection with a 20 kA nominal discharge current rating.

Applications

The AEGIS DN series provides DIN rail surge protection in a compact package.

The AEGIS DN can be used where:

- Only surge and transient voltage protection is needed
- 120–600 Vac, 12/24/48 Vdc or 1000/1500 Vdc circuits are to be protected
- Replacement modules are specified

Features

- Up to 50 kA per phase of surge protection
- 20 kA nominal discharge current rating
- Up to four protection modes (L1–N, L2–N, L3–N and N–G)
- Nominal voltages:
 - 120 Vac, 240 Vac, 277 Vac, 400 Vac, 480 Vac and 600 Vac
 - 12 Vdc, 24 Vdc and 48 Vdc
 - 1000 Vdc and 1500 Vdc photovoltaic units
- Red–green status indication flag
- Optional RC signaling
- Vibration and shock resistance withstand capabilities
- Thermal disconnecter
- Replaceable modules

Standards and certifications

- ANSI/UL® 1449 5th Edition voltage protection ratings
- RoHS, REACH and Prop 65 compliant



Powering Business Worldwide

Replacement modules for DN series

Voltage	Unit application for module	Catalog number
120 V	AGDN12010R, AGDN12020R, AGDN12030R, AGDN12040R	AGDN120P
240 V	AGDN24010R, AGDN24020R, AGDN24030R, AGDN24040R	AGDN240P
277 V	AGDN27710R, AGDN27720R, AGDN27730R, AGDN27740R	AGDN277P
400 V	AGDN40010R, AGDN40020R, AGDN40030R, AGDN40040R	AGDN400P
480 V	AGDN48010R, AGDN48020R, AGDN48030R, AGDN48040R	AGDN480P
600 V	AGDN60010R, AGDN60020R, AGDN60030R	AGDN600P
500 V	AGDN1000PV30LR	AGDN500PVP
750 V	AGDN1500PV30LR	AGDN750PVP

Ratings

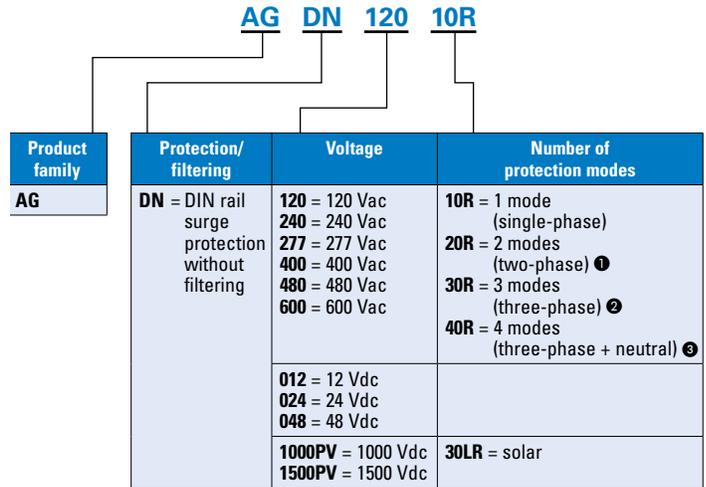
Description	Rating
Application	Single-, split- or three-phase systems
Input voltage range—AC	120–600 Vac
Input voltage range—DC	12–48 Vdc, 1000–1500 Vdc
Amperage	N/A
Frequency	50/60 Hz
Protection modes	L–N, L–G and N–G
MCOV	Up to 1500 V
Peak surge current per phase / per mode	Up to 50 kA / 25 kA
Operating temperature	–40 °F to +185 °F (–40 °C to +85 °C)
Response time	<25 nanoseconds
Agency approvals	UL 1449 5th Edition, IEC 61643-11, EN 61643-11
UL 1449 Type	Type 1CA
Warranty ❶	1 year
Status indicator	Indication flag

❶ With product registration.

AEGIS DN specifications

Specifications	12 Vdc	24 Vdc	48 Vdc	120 Vac	240 Vac	277 Vac	400 Vac	480 Vac	600 Vac	1000 Vdc	1500 Vdc
DIN mounting	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
UL 1449 5th Edition	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Filtering	No	No	No	No	No	No	No	No	No	No	No
L–G, L–N, and N–G protection modes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	N/A	N/A
Peak kA per phase	20 kA	20 kA	20 kA	50 kA	50 kA	50 kA	50 kA	50 kA	35 kA	40 kA	40 kA
UL nominal discharge current (I _n)	10 kA	10 kA	10 kA	20 kA	20 kA	20 kA	20 kA	20 kA	20 kA	20 kA	10 kA
UL voltage protection rating (VPR)	N/A	N/A	N/A	600 V	900 V	1000 V	1500 V	2000 V	2500 V	2500 V	4000 V
MCOV	15	28	52	150	300	350	480	550	750	1000	1500
Short-circuit current rating (SCCR)	N/A	N/A	N/A	200 kA	150 kA	200 kA	200 kA	200 kA	200 kA	50 kA	65 kA
Alarm contacts	No	No	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Warranty (years)	1	1	1	1	1	1	1	1	1	1	1
Communication line protection (UL 497A)	No	No	No	No	No	No	No	No	No	No	No

Catalog numbering system



❶ 20R typically used for split-phase.

❷ 30R used for split-phase plus neutral to ground protection.

❸ 40R not available in 600 Vac versions.