SurgeFree™

MODEL 300LS

Service Entrance Protection

The 300LS Series offer robust protection at the entrance of large facilities. The 300LS has an Ipeak of 300,000A/phase (8 x 20microsecond waveform). Seven times redundant protection paths/phase ensures continuous protection, even in an unlikely fault situation. Twenty-year, no-nonsense warranty; free protection modules for life. Series features mix and match options for a customized protector at stock prices. (See below for options.)

FEATURES

- 300LS: I peak=300,000A/Phase (8 x 20μs waveform)
- UL Listed 1449 4th Ed., NEMA LS1-1992
- Seven times redundant protection paths per phase
- Employs new 40kA high headroom varistors with built-in high-speed thermal disconnect
- Solid copper bus bar construction
- Field-replaceable modules
- EMI/RFI noise filtering
- Continuously monitored protection circuits
- Internal and external status indicators
- NEMA 4, Powder Coated Steel Enclosure

Ipeak=300,000A

UL 1449, 4th Ed. Listed

20-Year Warranty
Lifetime Module Replacement

Filter Attenuation

MIL STD 220A (50 Ohm):	120VAC	220 VAC	240VAC	277VAC	347VAC	480VAC
-30db	25kHz	25kHz	25kHz	50kHz	50kHz	50kHz
-40db	125kHz	180kHz	180kHz	100kHz	100kHz	100kHz
-50db	210kHz	210kHz	210kHz	180kHz	170kHz	170kHz
-60db	250kHz	250kHz	250kHz	200kHz	190kHz	190kHz

Mix & Match!

Options Available: Disconnect Switch• Upgraded Front Panel: Surge Event Counter, Beeper, + Status Relay (1 Form C Contacts) • NEMA 4X Enclosure • Low Impedance Micro-Z cable (10AWG) • Flush mount kit

SPD Type:	Type 2
I_n:	20kA
Maximum Continuous Operating VAC (MCOV):	115% Rated Line Voltage
Varistor MCOV:	125% Rated Line Voltage Minimum
SCCR:	100kA AIC
Surge Current/Phase (8/20μs):	1 Event - 300kA.
Surge Life/Phase (8/20μs):	10,000 Events: 13kA.
Surge Current/Mode (8/20μs):	L-N: 170kA; L-G: 130kA; N-G: 120kA; L-L: 300kA
Surge Current/Mode, "D" Models (8/20μs):	L-G: 300kA; L-L: 300kA
Response Time:	<5 ns
Status Indicators:	LED Status Indicators (internal & external)
Modes of Protection:	L-N, L-G, L-L, N-G
Operating Altitude:	13,000ft. (4000m)
Temp. (Operating/Storage):	-40° to +70°C/-40° to +85°C
Enclosure:	NEMA 4, 14 gauge steel. powder coated
Dimensions:	17" x 15" x 6" (432 x 381 x 153mm)
Mounting:	17.75" x 13"/.313"ID - 4 holes, (451 x 330mm/7.9mm ID) - 4 holes
Conduit Fitting Hole:	1" trade size located at the bottom of enclosure
Weight:	35 lbs. (16.7 kg)
UL File Number:	E322161
UL Certification:	UL Listed to 1449 4th Edition UL96A Lightning Protection Master Label Compliant
ARRA Certification:	Complies with ARRA 1605 requirements

MADE IN THE USA

MCG Surge Protection - Toll Free: 1-800-851-1508 - www.mcgsurge.com - email: info1@mcgsurge.com
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Specifications

- ANSI/IEEE C62.41-2002
- IEC 61643-1-1998
- UL 1449, 4th Ed.

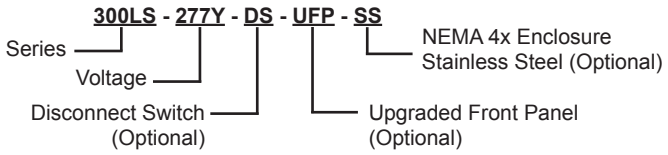
Service Entrance Protection

Model 300LS

Model 300LS	Service	VPR L-N	VPR L-G	VPR N-G	VPR L-L	6kV (1.2x50µs) 3kA (8x20µs) (L-N)***	20kV (1.2x50µs) 10kA (8x20µs) (L-N)***
-120S	120VAC, 1ϕ, 2W+Gnd	900	900	900	n/a	490	580
-120T	120/240VAC, 1ϕ, 3W+Gnd	900	900	900	1200	520	614
-120Y	120/208, 3ϕ, 4W+Gnd, Wye	900	900	900	1200	520	614
-220Y	220/380, 3ϕ, 4W+Gnd, Wye	1500	1500	1500	2000	1008	1164
-220S	220VAC, 1ϕ, 2W+Gnd	1500	1500	1500	n/a	960	1110
-240Y	240/415, 3ϕ, 4W+Gnd, Wye	1500	1500	1500	2000	1008	1164
-240S	240VAC, 1ϕ, 2W+Gnd	1500	1500	1500	n/a	960	1110
-277Y	277/480, 3ϕ, 4W+Gnd, Wye	1500	1500	1500	2000	1008	1164
-347Y	347/600, 3ϕ, 4W+Gnd, Wye	1500	1500	1500	2500	1280	1450
-240DCT*	240/120/120, 3ϕ, 4W+Gnd	900/1500**	900/1500**	900	2000/1800** 1200/2000**	1008/520	1164/614
-240D	240, 3ϕ, 3W+Gnd, Delta	n/a	1500	n/a	2000	1008 (L-G)	1164
-480D	480, 3ϕ, 3W+Gnd, Delta	n/a	2000	n/a	4000	1566 (L-G)	1766
-600D	600, 3ϕ, 3W+Gnd, Delta	n/a	2000	n/a	4000	1776 (L-G)	1970

* High-leg Delta Center Tapped ** High-leg *** Actual Measurements w/6" Lead Length

Model Ordering:



Note: Additional options: Low-impedance MZ cable (10AWG) and flush mount kit must be ordered as separate line items.

Energy Absorption (8/20µs) in joules: 17,664 - 75,600J

A Note On Headroom A surge protector responds to increases in voltage. Surge protectors triggered by the nominal line voltage are undesirable, consequently headroom is always factored into surge protector design. Long duration voltage swells occur on power lines and can damage a surge protector, leaving facility equipment vulnerable. By employing higher headroom, continuity of surge protection is guaranteed. This feature is standard in MCG surge protectors. Higher headroom allows varistors to ride out voltage swells while ensuring that let-through voltage remains within CBEMA (now ITIC) guidelines. The CBEMA curve is the most accepted graph worldwide for equipment susceptibility analysis.

A Note On LS Series VPR These VPR represent standard wiring plus the upstream overcurrent safety device (circuit breaker). For best performance, use MCG's Micro-Z Cable (optional).

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