Larson Electronics LLC
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NGR-AC-34.5KV-10KA-AN-CU-M1

10 kA 1-PH Air Core Neutral Grounding Reactor, 34500V , AN Class, 60 Hz, Copper, Light Grey

Product ID: 315387



Image: NGR-AC-34.5KV-10KA-AN-CU-M1

Larson Electronics LLC manufactures a wide variety of products, including custom built to spec designs. The pictures displayed for this unit are a general representation of form factor for the product line and may not accurately represent this exact configuration in every detail due to custom builds and changes between similar products in our standard catalog. The specifics for this configuration are listed in the specification table and supporting documentation (CAD files, Dimensional Drawing, Name Plate Diagram, Wiring Diagram, etc.). This means that specific details (receptacles, plugs, wires, connections, mounting brackets, external finishes, etc.) may not be accurately represented in images vs specifications. Please review specifications and do not order based solely on images.

NGR-AC-34.5KV-10KA-AN-CU-M1 Air Core Neutral Grounding Reactor

Type: Air Core, Dry Type
Nominal Voltage Rating: 34.5 kV
Voltage Operating Range: 31 - 38 kV
Insulation Class: 38 kV
Voltage BIL (Coil): 200 kV
Voltage BIL (Base insulator): 200 kV
Current Capability Rating: 10 kA/3s
Short-circuit Capability Rating: < 25.5 kA (@ 10 sec.)
Frequency: 60 Hz
Quality Factor @ Rated Factory: >10
Rated Current: >300A
Rated Resistance: 2.0 Ohm
Rated Inductance: 5.305 mH, -3% ~ +10%
X/R For A Ground Fault: -
Minimum Creep Distance: 37.4 inches
Installation: Outdoor
Winding Material: Copper
Terminal: NEMA 4-hole copper pad
Lightning Arrestors: Included, (1) Station Class
Lightning Arrestor Voltage Rating: 36 kV Class, 10kA
Lightning Arrestor MCOV Rating: 29 kVrms
Knockouts: N/A
Current Transformer: Included, 100/5A, 5P10, 10VA
Bushings for External Neutral Connections: Included, with support and insulators
Cooling Class: AN (Air-Natural)

Approvals/Ratings

NRTL listed for United States
NRTL listed for Canada
Meets or Exceeds NEMA ST-20 Standards
Meets or Exceeds ANSI TR-2055 Station Post Insulators
Seismic Qualified for Earthquake Loads
CE Certified
UL Listed
2 Years Of Warranty
RoHS

Mounting: Aluminum Bottom Pedestal
Mounting Insulators: TR231 / C4-250 Insulator
Insulation: 220°C
Temperature Rise: 155°C
Elevation (Altitude): <3300 ft
Temperature Range: -40°C to +50°C
Wind Load: <100 mph
Ice / Snow Load: 20 psf
Seismic Requirement (Horizontal): 0.2g
Sound Level: Meets NEMA ST-20 Standards
Enclosure Construction: Epoxy Impregnated, Fiberglass Encapsulated Construction
Finish: ANSI 70 Light Grey
Dimensions: .37.732" (+/- 3.937") H x 40.973" (+/-1.969") Ø; 68.70"H (w/ insulators)
Weight: 1540 lbs
Shipping Method: TBD
Shipping Weight: TBD
Shipping Dimensions: TBD

Special Orders - Special Requirements

Contact us for special requirements

Toll Free: 1-800-369-6671
Intl: 1-903-270-1187
Fax: 1-903-765-7664
E-mail: sales@larsonelectronics.com

The NGR-AC-34.5KV-10KA-AN-CU-M1 is a single phase reactor generally connected between ground and neutral of transformers or generators in order to control single line-to-ground faults at a desired level. They achieve this by resisting current flow through inductive elements. This unit is used in order to limit line-to-ground fault current to a value which will not damage the equipment in the power system, yet allow sufficient flow of fault current to operate protective relays to clear the fault. If the circuit is balanced, current flow through the reactor will be zero, thus, there will be no losses.

PLEASE NOTE: ANY FREE SHIPPING OFFERS DO NOT APPLY TO POWER DISTRIBUTION PANELS, TRANSFORMERS, OR SUBSTATIONS

Unit Features: The NGR-AC-34.5KV-10KA-AN-CU-M1 is a single phase reactor with a 10 kA current capability. This reactor is configured with a rated voltage of 34.5 kV AC. Featuring robust construction, this unit's cores are manufactured with non-aging, cold-rolled silicon steel laminations using state of the art technology.

This unit boasts a low cost of ownership and is highly energy efficient. Lower heat emissions mean less cooling is needed as well. The standard NEMA Type 3R enclosure makes the unit suitable for both indoor and outdoor applications and is designed to be floor mounted. Wall mount brackets or additional mounting accessories can be purchased separately. This reactor features 220°C insulation with a 155°C temperature rise.

Benefits: The NGR-AC-34.5KV-10KA-AN-CU-M1 has a perfect mechanical strength to withstand high short-circuit forces, limited temperature rise enables longer lifetime, special surface protection against UV and pollution Class IV areas, maintenance-free design, low noise levels.

Applications: Reducing single phase to earth fault currents which occur in electrical networks to prevent damages on transformers and generators, reducing temporary over voltages formed by braking instantaneous fault currents, providing long-life for switchgears, and reducing step voltages to a harmless level for personnel.

Larson Electronics is a manufacturer and as such can build stationary and portable transformer systems to your specifications. Although we carry several models of power distribution transformer systems, we can deliver custom ordered units almost as quickly as our prebuilt units. If this model does not meet your needs, please contact us at 1-800-369-6671 or sales@larsonelectronics.com to discuss your specific requirements.

VERSION	REVISION	DATE	EDITOR	REVIEWER	APPROVER
0A	Initial Draft	2026/7/15			
1	Revised design				
2	Revised design				

THE MAGNETIC FIELD OF THE REACTOR CAUSES THERMAL AND ELECTRODYNAMIC EFFECTS ON NEIGHBOURING METALLIC PARTS. THE RECOMMENDED MAGNETIC CLEARANCE CONTOUR (MC) FOR SMALL METALLIC PARTS IS SHOWN IN THE DRAWING. WITHIN MC1 LIMITS, ANY METALLIC PARTS ARE FORBIDDEN; BETWEEN MC1 AND MC2, NO CLOSED LOOPS ARE ALLOWED, BUT SMALL METALLIC PARTS ARE ACCEPTABLE; BEYOND MC2, BOTH CLOSED LOOPS AND BIG METALLIC PARTS ARE ACCEPTABLE.

MINIMUM DISTANCES
BETWEEN COILS.
A≥1770[69.69]



NOTES:
1.REACTOR SUITABLE FOR OUTDOOR INSTALLATION.
2.WINDING: COPPER CONDUCTOR.
3.DIMENSIONS ARE IN MILLIMETERS(INCHS).
4.REACTOR BUILT TO IEEE C57.32 SPECIFICATIONS.
5.ALTITUDE: ≤1000m.
6.NON MAGNETIC STAINLESS STEEL BOLTS FOR TERMINAL ARE NOT INCLUDED.
7.TECHNICAL DATA

TECHNICAL DATA		
1	RATED VOLTAGE	34.5kV
2	RATED FREQUENCY	60Hz
3	RATED CURRENT	300A
4	RATED INDUCTANCE	5.305mH
5	INDUCTANCE TOLERANCE	-3%~+10%
6	RATED THERMAL SHORT-CIRCUIT CURRENT	10kA/3s
7	MECHANICAL CURRENT(PEAK)	25.5kA
8	FUNDAMENTAL LOSSES PER PHASE(75℃,60Hz)	5.7kW
9	BIL ACROSS COIL	200kV
10	BIL ACROSS BASE INSULATOR	200kV
11	CREEPAGE DISTANCE	940mm
12	DESIGN AMBIENT TEMPERATURE	-40~+50℃
13	SEISMIC REQUIREMENT(HORIZONTAL)	0.2g
14	CORROSION LEVEL	C3
15	AVERAGE TEMPERATURE RISE AT 1.0 P.U.	70K
16	HOT SPOT TEMPERATURE RISE AT 1.0 P.U.	90K
17	COIL WEIGHT	550kg
18	TOTAL WEIGHT	700kg
19	COIL COLOR	B05
20	INSULATOR COLOR	GRAY
21	WIND SPEED	45m/s

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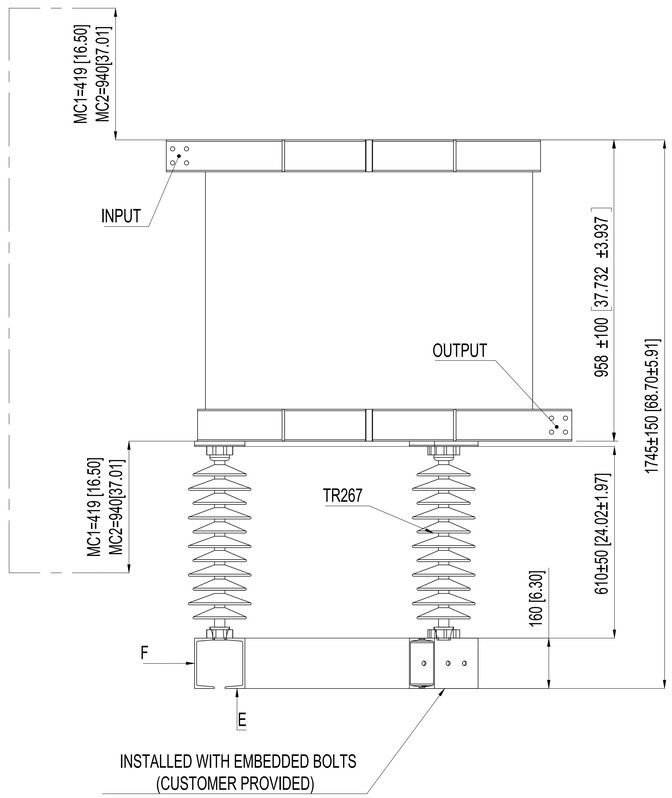
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NEUTRAL GROUNDING REACTOR

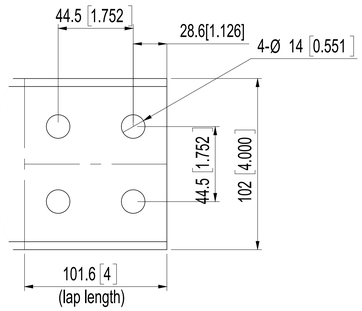
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○ SER.NO	BQ20260811	YEAR OF MANUF		INDOOR/OUTDOOR	OUTDOOR ○
RATED VOLTAGE	34.5kV	RATED CURRENT	300A	RATED FREQUENCY	60Hz
RATED TERMINAL VOLTAGE	0.6kV	RATED INDUCTANCE	5.305mH	MEASURED INDUCTANCE	mH
RATED POWER	180kvar	AVG RISE	≤70K	INSULATION LEVEL	LI200AC70
NO.OF PHASES	1	TYPE OF COOLING	AN	COIL WEIGHT	550kg
ALTITUDE	≤1000m	STANDARD	IEEE C57.32		

PRODUCT ID:315387

MODEL	NGR-AC-34.5KV-10KA-AN-CU-M1
DRAWING NO.	
TYPE	OUTLINE DRAWING
SCALE	1:13.4 PAGE 1 OF 1
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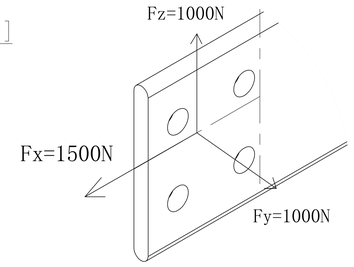


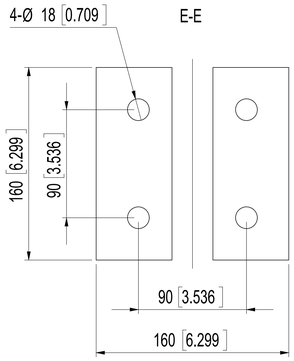
INPUT AND OUTPUT TERMINAL DETAIL

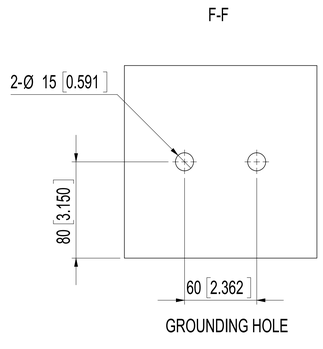


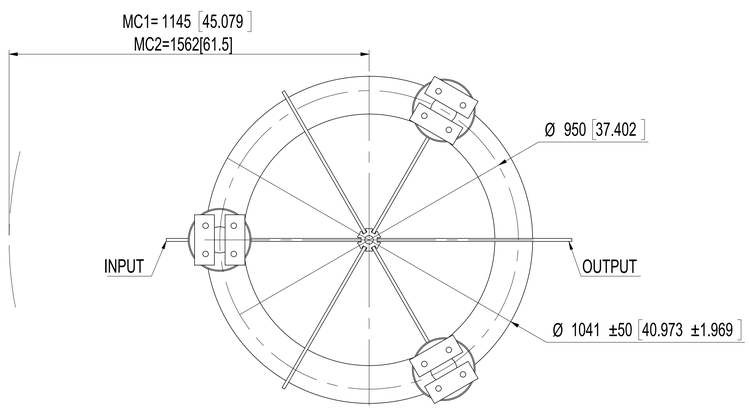
MATERIAL: ALUMINUM

THICKNESS:9.5mm

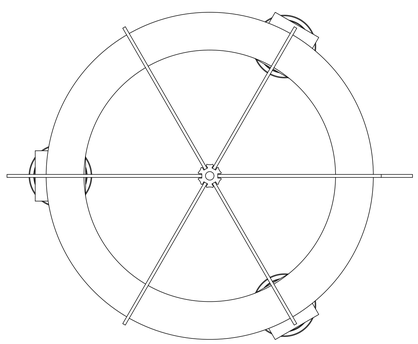








BOTTOM VIEW



TOP VIEW

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Frequently Asked Questions (FAQ)

There are no Faqs