REL-MR- 48DC/21-21AU - Single relay

2834847

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Plug-in miniature power relay, with multi-layer gold contact, 2 changeover contacts, input voltage 48 V DC

Your advantages

- RT III-proof (wash-proof)

Commercial data

Item number	2834847
Packing unit	10 pc
Minimum order quantity	10 pc
Note	Made to order (non-returnable)
Sales key	DK6936
Product key	DK6936
GTIN	4046356118934
Weight per piece (including packing)	16.2 g
Weight per piece (excluding packing)	14.95 g
Customs tariff number	85364900
Country of origin	AT

Technical data

Product properties

Product type	Single relay
Operating mode	100% operating factor
Mechanical service life	3x 10^7 cycles

Insulation characteristics

Insulation	Basic insulation
Overvoltage category	III
Pollution degree	3

Data management status

Date of last data management	09.10.2026

Electrical properties

Service life electrical	see diagram
Maximum power dissipation for nominal condition	0.42 W
Test voltage (Winding/contact)	5 kV AC (50 Hz, 1 min.)
Test voltage (Contact/contact)	2.5 kV AC (50 Hz, 1 min.)
Test voltage (open contact)	1 kV (50 Hz, 1 min.)

Input data

Coil side

Nominal input voltage U_N	48 V DC
Input voltage range	31.2 V DC ... 119 V DC
Drive and function	monostable
Drive (polarity)	non-polarized
Typical input current at U_N	8.7 mA
Typical response time	7 ms
Typical release time	3 ms
Coil resistance	5520 Ω ±10 % (at 20 °C)

Output data

Switching

Contact switching type	2 changeover contacts
Type of switch contact	Single contact
Contact material	AgNi, hard gold-plated
Maximum switching voltage	30 V AC
	36 V DC
Minimum switching voltage	100 mV (at 10 mA)
Limiting continuous current	50 mA
Maximum inrush current	50 mA

Min. switching current	1 mA (at 24 V)
Interrupting rating (ohmic load) max.	1.2 W (at 24 V DC)

Switching: when the gold layer is destroyed

Note	the following values are applicable if a gold layer is destroyed
Contact material	AgNi
Maximum switching voltage	250 V
Minimum switching voltage	5 V (at 10 mA)
Limiting continuous current	8 A
Maximum inrush current	15 A (300 ms)
Min. switching current	10 mA (At 5 V)
Interrupting rating (ohmic load) max.	190 W (at 24 V DC)
	100 W (at 48 V DC)
	60 W (at 60 V DC)
	44 W (at 110 V DC)
	60 W (at 220 V DC)
	2000 VA (for 250 V AC)
Switching capacity	2 A (at 24 V, DC13)
	0.2 A (at 110 V, DC13)
	0.2 A (at 250 V, DC13)
	2 A (at 24 V, AC15)
	2 A (at 120 V, AC15)
	2 A (at 250 V, AC15)

Connection data

Connection method	Plug / solder connection

Dimensions

Item dimensions

Width	12.7 mm
Height	29 mm
Depth	15.7 mm

Material specifications

Color	white (RAL 9010)

Environmental and real-life conditions

Ambient conditions

Degree of protection	RT III
Ambient temperature (operation)	-40 °C ... 85 °C

Approvals

Corrosive gas test

Identification	ISA-S71.04. G3 Harsh Group
	EN 60068-2-60

Standards and regulations

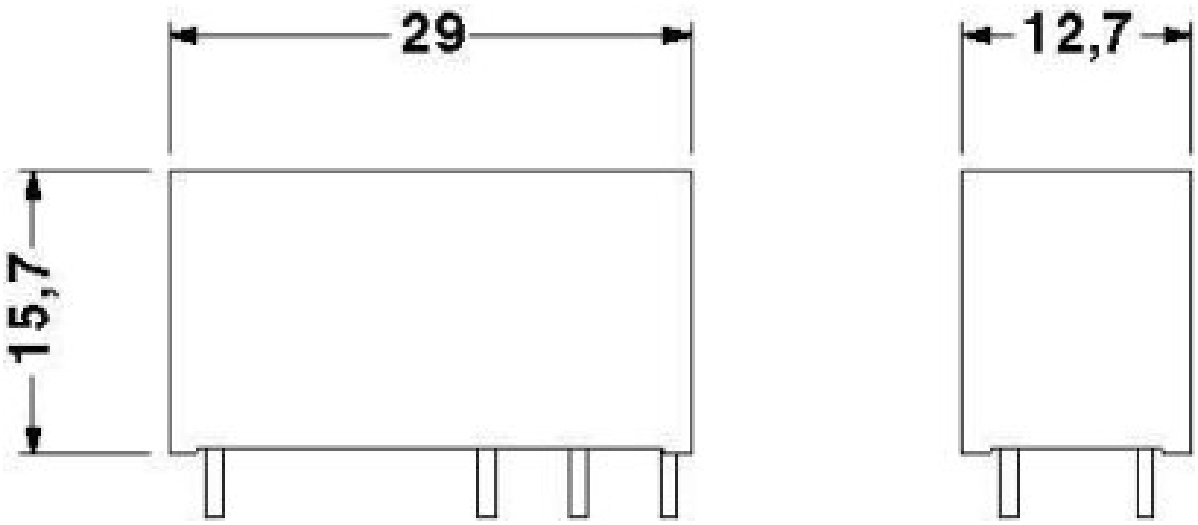
Standards/regulations	IEC 60664
	EN 50178
	EN 61810-1

Mounting

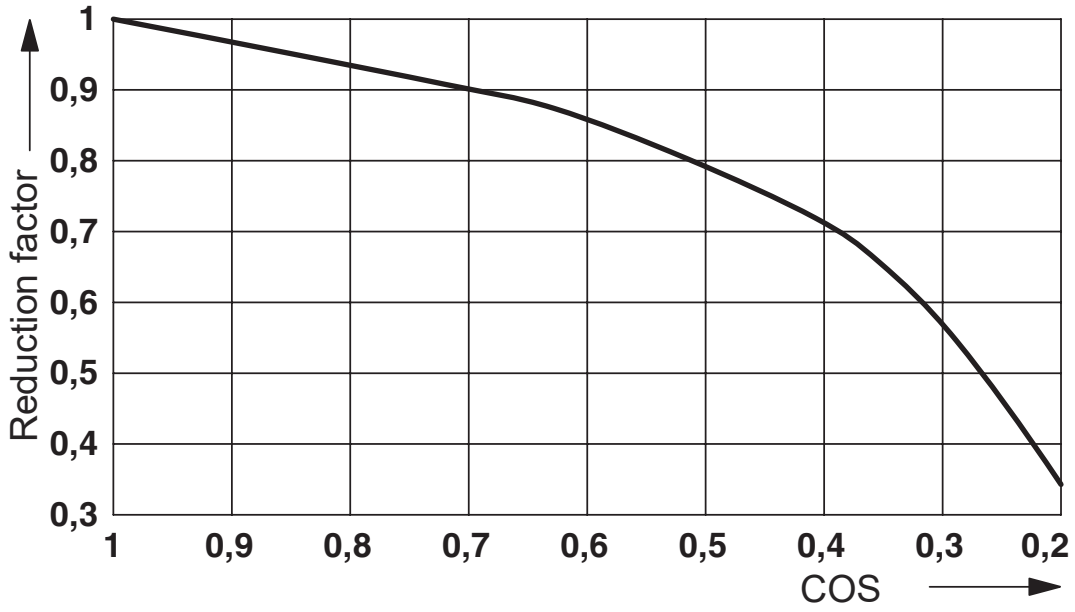
Assembly note	Can be aligned without spacing (> 70 °C ≥ 2.5 mm)
Mounting position	any

Drawings

Dimensional drawing

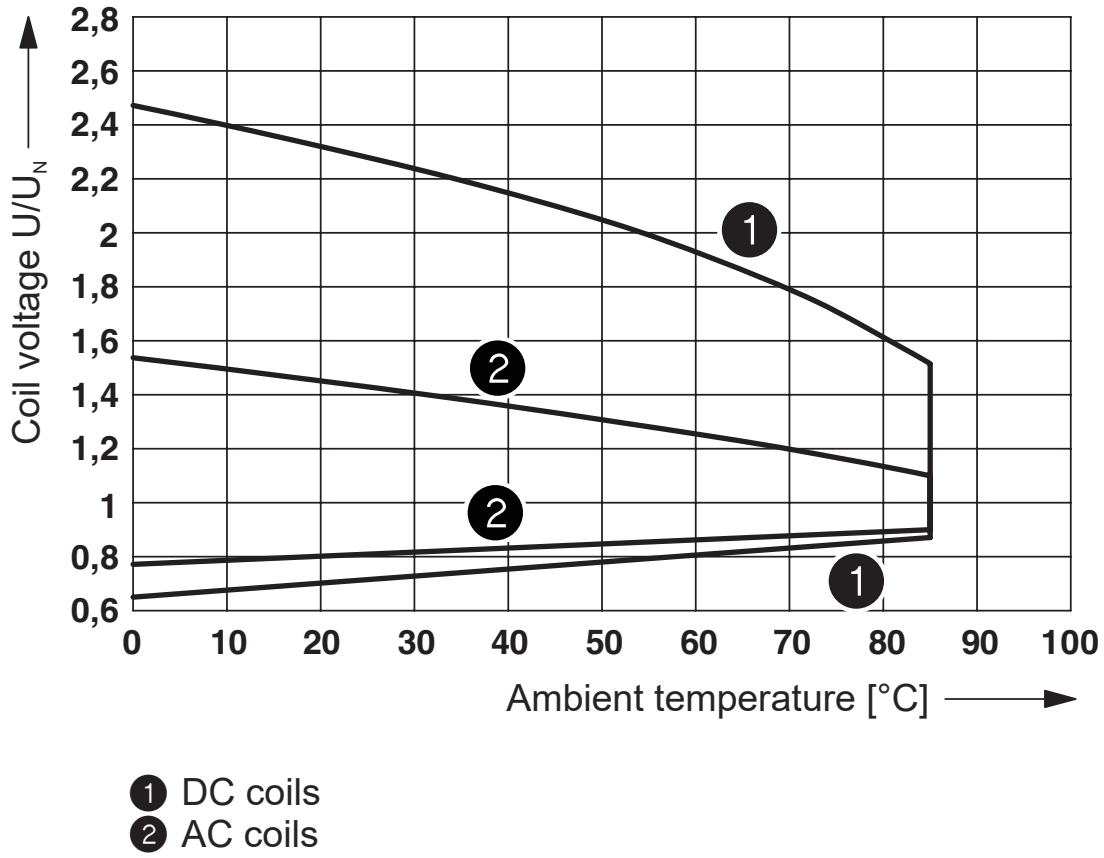


Diagram



Service life reduction factor with various cos phi

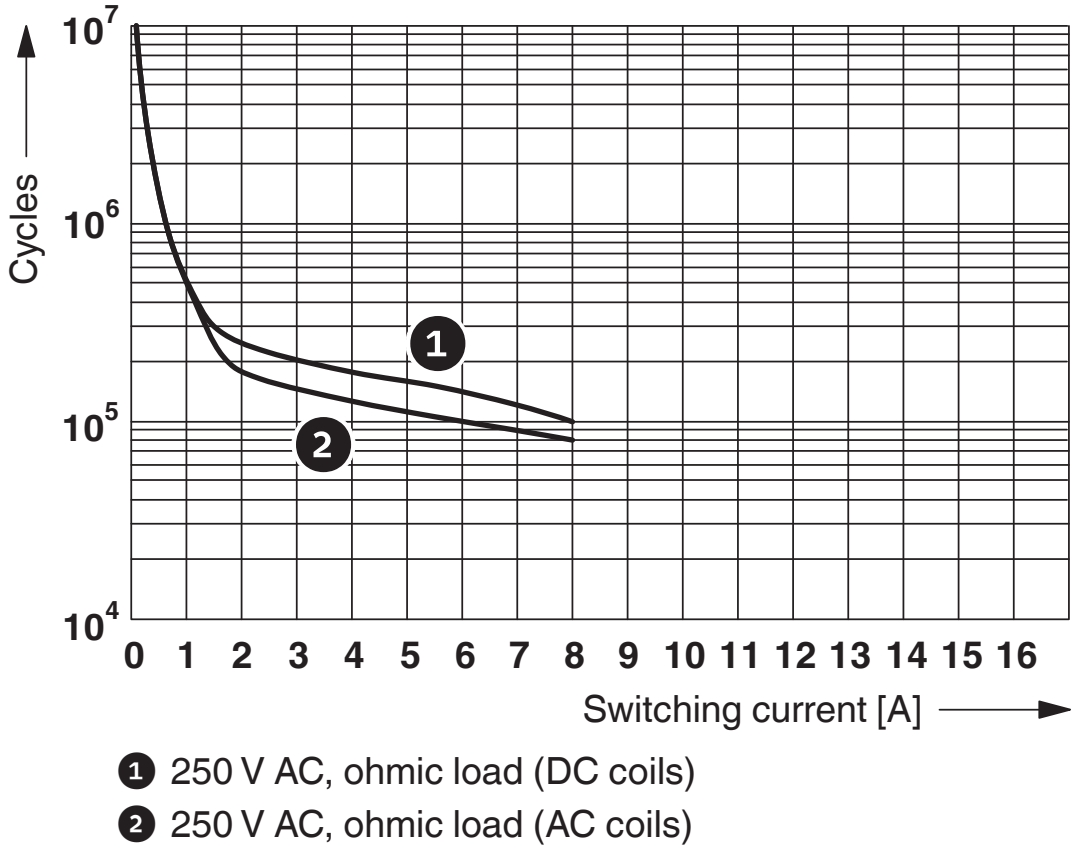
Diagram



1 DC coils
2 AC coils

Operating voltage range

Diagram

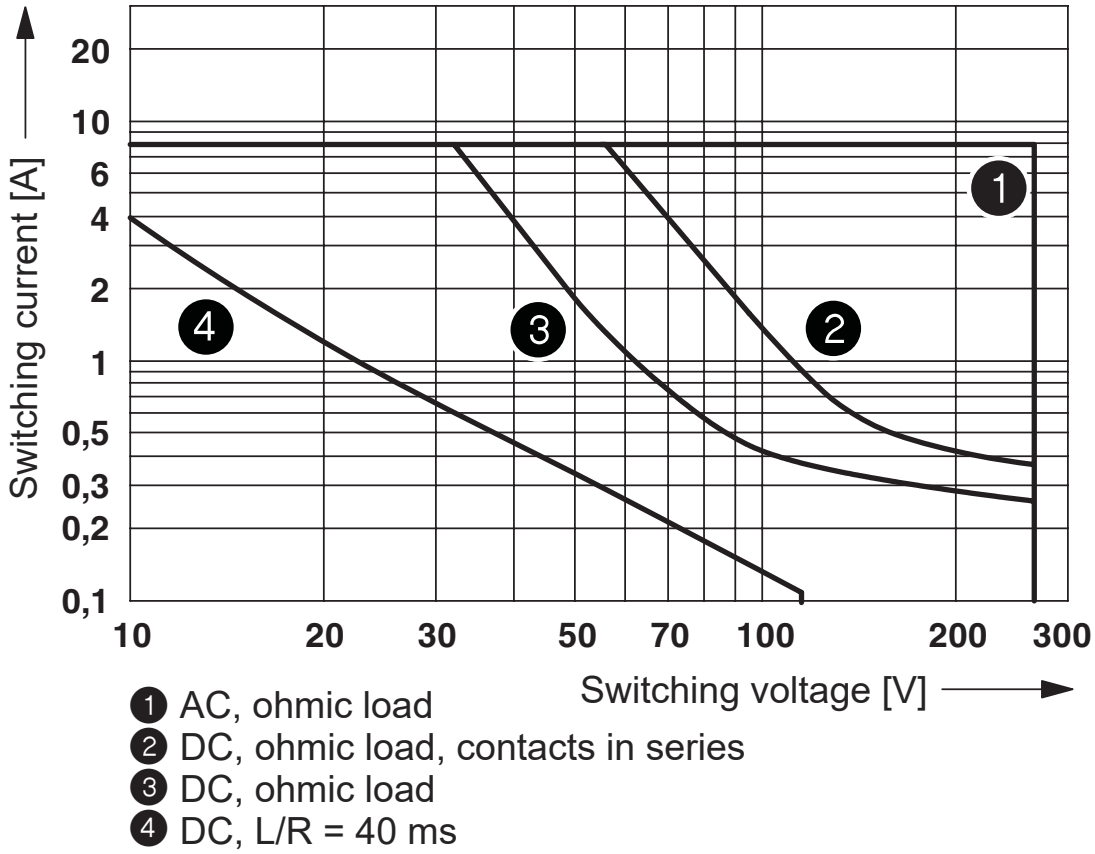


1 250 V AC, ohmic load (DC coils)

2 250 V AC, ohmic load (AC coils)

Electrical service life

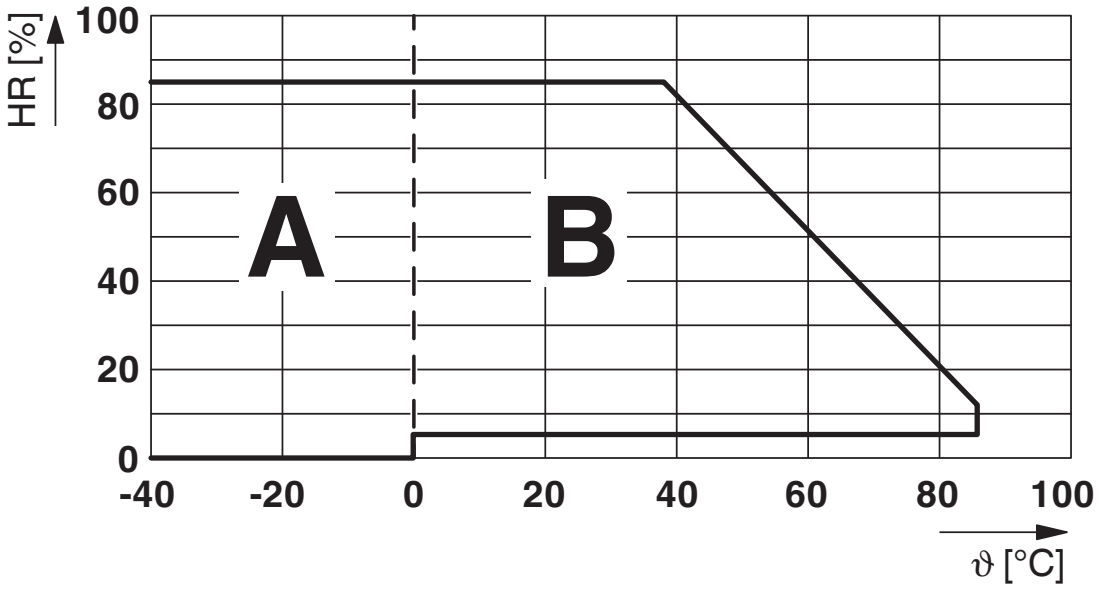
Diagram



1 AC, ohmic load
2 DC, ohmic load, contacts in series
3 DC, ohmic load
4 DC, L/R = 40 ms

Interrupting rating

Diagram

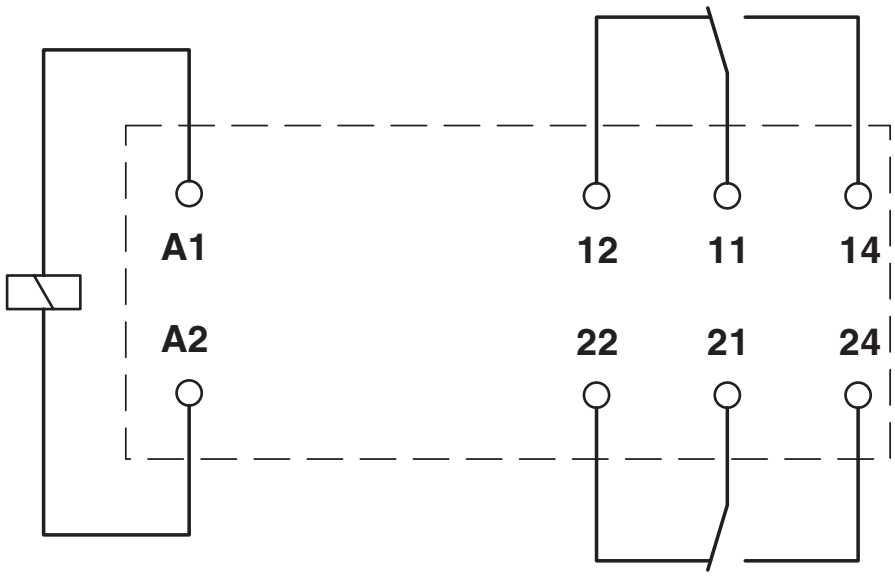


Permissible humidity for operation and storage.
The maximum permissible ambient temperature as specified in the data sheet must be observed.

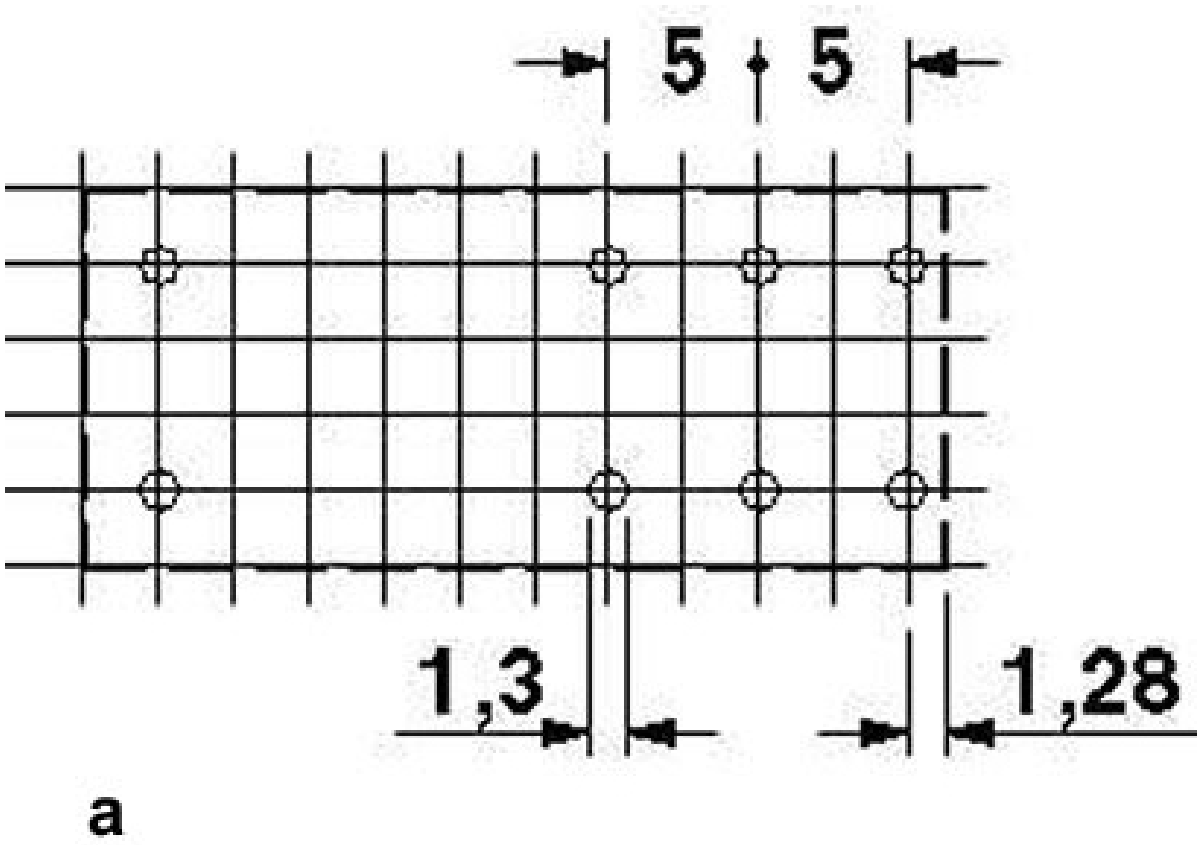
Area A: Ice buildup at ambient temperatures ≤ 0°C must be prevented
Area B: Condensation at ambient temperatures > 0°C must be prevented

On 30 full days that are naturally distributed across an entire year, a humidity level of 95% is permissible at an ambient temperature ≤ 25°C.

Circuit diagram



Drilling plan/solder pad geometry



a = pitch division 2.5 mm

Approvals

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cUL Recognized
Approval ID: FILE E 522914

UL Recognized
Approval ID: FILE E 522914

VDE Zeichengenehmigung
Approval ID: 40048281

VDE Zeichengenehmigung
Approval ID: 40007758

cULus Recognized
Approval ID: E172140

Classifications

ECLASS

ECLASS-13.0	27371601
ECLASS-15.0	27371601

ETIM

ETIM 10.0	EC001437

UNSPSC

UNSPSC 21.0	39122300

Environmental product compliance

EU RoHS

Fulfills EU RoHS substance requirements	Yes, No exemptions

China RoHS

Environment friendly use period (EFUP)	EFUP-E
	No hazardous substances above the limits

EU REACH SVHC

REACH candidate substance (CAS No.)	No substance above 0.1 wt%

EF3.1 Climate Change

CO2e kg	0.331 kg CO2e

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