

Current Sensor HCM 300A-0-20-CCA-C

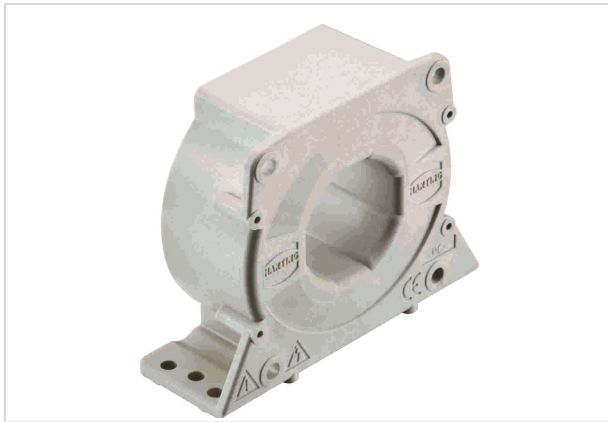


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Part number	20 31 030 0201
Specification	Current Sensor HCM 300A-0-20-CCA-C
HARTING eCatalogue	https://b2b.harting.com/20310300201

Identification

Category	Current measurement
Series	HCM
Element	Current sensor
Sensor technology	Hall-Effekt Closed loop
Features	Hall effect compensated current sensor Measurable currents: AC, DC, pulsed, mixed ... High accuracy over the entire measuring range Galvanic insulation between primary and secondary current Switchboard mounting Housing material and potting mass have a flammability rating UL 94 V-0 Applications: frequency converters, electrical drives, switched mode power supplies, UPS

Version

Termination	Metz Typ 320 (PT11503VBBN)
Field of application	Industrial version
Pack contents	Connecting cable included

Technical characteristics

I_{PN} Nominal primary current	300 A
I_{PM} Primary current, measuring range	0 ... \pm 500 A
R_M Measuring resistance @ $I_{PM \max}$, $U_C \max$, $T_A \max$	5 ... 52 Ω For other primary currents see diagram.
I_{SN} Nominal secondary current	150 mA
K_N Turns ratio	1 : 2000



Technical characteristics

U_C Power supply	$\pm 15 \dots \pm 24 \text{ V} \pm 5 \%$
I_C Current consumption @ $U_C \text{ min}$	$20 \text{ mA} + I_S$
X Overall accuracy @ I_{PN} , $T_A = 25 \text{ }^\circ\text{C}$	$\pm 0.5 \%$
E_L Linearity	$< 0.1 \%$
I_O Offset current @ $I_P = 0 \text{ A}$, $T_A = 25 \text{ }^\circ\text{C}$	$\pm 0.3 \text{ mA}$
I_{OT} maximum temperature drift of I_O	$\pm 0.7 \text{ mA}$
t_r Response time @ I_{PN}	$< 1 \mu\text{s}$
di/dt with optimal coupling	$> 100 \text{ A}/\mu\text{s}$
f Frequency	$0 \dots 100 \text{ kHz}$
T_A Ambient temperature	$-40 \dots +85 \text{ }^\circ\text{C}$
T_S Storage temperature	$-45 \dots +90 \text{ }^\circ\text{C}$
R_S Secondary coil resistance @ $T_{A \text{ max}}$	31Ω
U_D Test voltage, effective (50 Hz, 1 min)	3 kV Primary - secondary
U_{SI} Rated impulse voltage (1,2/50 μs)	10 kV
U_B Rated voltage	600 V
Overvoltage category	III
Pollution degree	2
L_S Clearance distance	19.5 mm
K_S Creepage distance	26.3 mm
Tightening torque	3.2 Nm (4x steel screw M4 - Vertical) 3.2 Nm (4x steel screw M4 - Horizontal)

Material properties

Material (hood/housing)	Polycarbonate (PC)
Material flammability class acc. to UL 94	V-0
RoHS	compliant with exemption
RoHS exemptions	6(c): Copper alloy containing up to 4 % lead by weight
ELV status	compliant with exemption
China RoHS	50
REACH Annex XVII substances	Not contained

Material properties

REACH ANNEX XIV substances	Not contained
REACH SVHC substances	Yes
REACH SVHC substances	Lead
California Proposition 65 substances	Yes
California Proposition 65 substances	Lead

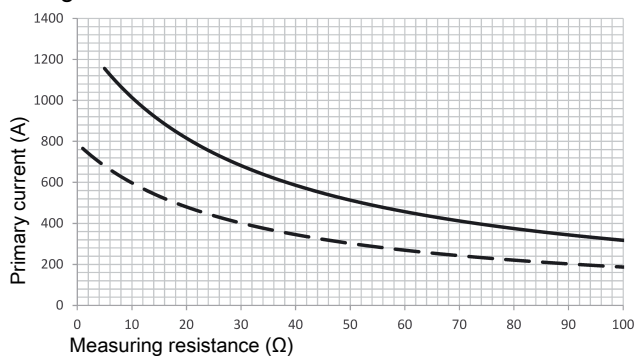
Specifications and approvals

Specifications	EN 50178 IEC 61373
Approvals	DNV GL
CE	Yes

Commercial data

Packaging size	1
Net weight	356 g
Country of origin	Germany
European customs tariff number	90303370
eCl@ss	27210902 Current transformer

Measuring resistance



— $U_C = \pm 24\text{ V} - 5\%$, $T_A = 85\text{ °C}$

- - - $U_C = \pm 15\text{ V} - 5\%$, $T_A = 85\text{ °C}$

Primary currents higher than I_{PM} only for peak!

Remark

- If I_P flows in the direction of the arrow I_S is positive.
- Over currents ($\gg I_{PN}$) or the missing of the supply voltage can cause an additional permanent magnetic offset.
- The temperature of the primary conductor may not exceed 100 °C .