# NF300AB15DY2T0KBI

#### Main characteristics:

- Nominal current measurement: from ±300A DC, AC
- Excellent linearity: 15 ppm
- High resolution
- Very low offset drift
- Overall accuracy at I<sub>PN</sub> @ +25°C: ≤±0.1 %
- Wide frequency bandwidth up to 300 kHz (- 1 dB)
- ROHS Compliant

#### **Features:**

- DC, AC pulse currents' measurements with galvanic isolation
- Nano Crystal Fluxgate technology
- Electrostatic shield between primary and secondary circuit
- Bipolar Power supply ±15 Volt
- Operating temperature range from -20 to +85°C
- Wire Connector Type
- Current output
- Really quick response time (<300 ns)

# **Standard compliance:**

- Typical applications:
- Feedback element in precision current regulated devices (power supplies...)
- Precise and high stability inverters
- Medical equipment
- Energy measurement
- Power analyzers

#### Remarks:

- Current overload capability
- Additional output indicating the transducer state

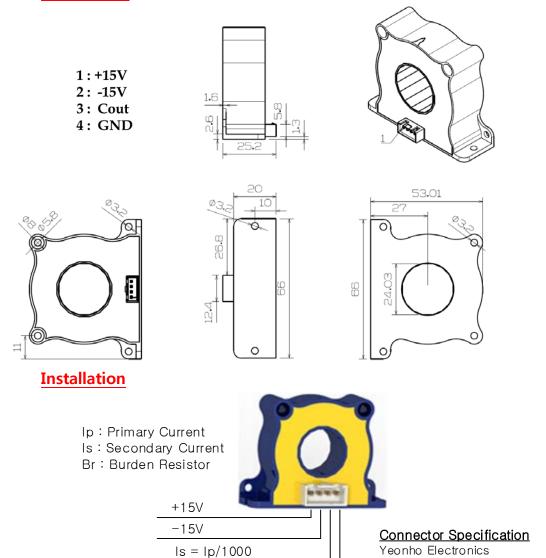
# **Specification**

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Nominal primary current (I <sub>PN</sub> )	±300	A r.m.s.
Measuring range @ ±15V (±5%)	±450	A peak
Max. measuring resistance @ I <sub>P</sub> max & ±15V (±5%)	30	Ω
Min. measuring resistance @ I <sub>PN</sub> & ±15V (±5%)	0.1	Ω
Turn number	2000	turn
Secondary current at I <sub>PN</sub>	300/2000	Α
Accuracy at I <sub>PN</sub> @ +25°C	≤±0.1	%
Accuracy at I <sub>PN</sub> @ -5 ~ +85°C	≤±0.2	%
Accuracy at I <sub>PN</sub> @ -20 ~ +85°C	≤±0.5	%
Offset current @ +25°C	≤±100	uA
Linearity	≤±0.05	%
Thermal drift coefficient @ -5 ~ +85°C	≤2	uA/°C
Thermal drift coefficient @ -20 ~ +85°C	≤5	uA/°C
Delay time	≤0.5	us
di/dt correctly followed	≤60	A/us
Bandwidth @ -1dB	≤300	kHz
Max. no-load consumption current @ ±15V (±5%)	≤20	mA
Secondary resistance @ +85°C	≤35	Ω
Dielectric strength Primary/Secondary @ 50Hz, 1min	3	kV
Supply voltage @ ±20%	±15V	V dc
Voltage drop	≤3	V
Mass	0.239	kg
Operating temperature	-20 ~ +85	°C
Storage temperature	-25 ~ +125	°C

# **General data**

- Plastic case and insulating resin are self-extinguishing.
- Fixing holes in the case molding for two positions at right angles
- Direction of the current: A primary current flowing in the direction of the arrow results in a positive secondary output current from terminal C<sub>OUT</sub> .

### **Dimensions**



\* The positive direction of the current from the front to the rear of the head (the front of the contactor).

(Secondary\_Resistance + Measuring\_Resistance) x Max\_Secondary\_Current + 1V = 12V Measuring\_Resistance = (12 - 1) / Max\_Secondary\_Current - Secondary\_Resistance Therefore, Meauring\_Resistance =  $11/(200/2000) - 15 = 33.9 \Omega$ 

#### **Caution**

V = Is X Br

Br ≨

GND

Be careful not to operate under  $0.1\Omega$  burden resistor. The current sensor is damaged.

PCB Ass'y: SMAW250-04 Housing: SMH250-04

Terminal: YST025