Single-phase line and commutating reactor
acc. to VDE0570-2-20 (EN61558 /IEC61558)

Type code:
- **KD: Single-phase line and commutating reactor / EI-core**

Generally:

Line reactor: This reactor, which is connected in series (connected in incoming circuit) to the load, causes:
- A restriction of the starting current
- Attenuation of the current harmonics
- Realisation of the short-circuit voltage (uk) of 4%.

- Commutating reactor: This reactor, connected in incoming circuit on the AC-side of converter installations, causes:
- A lower ripple
- Attenuation of the current harmonics
- Realisation of the short-circuit voltage (uk) of 4%
- Reduction of the steepness of the current rise while commutation, as well as with short-circuit or body contact.

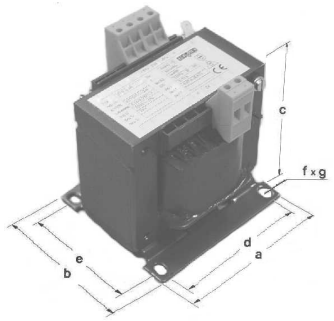
- Degree of protection IP00 (suitable for installation in enclosures up to IP20)
- Dimensioning for pollution severity P2
- Maximum ambient temperature 40°C / Insulation class F
- Frequency 50 Hz
- Vacuum-resin impregnated
- Dimensioned for continuous operation (ED = 100 %)
- Connections – at currents up to approx. 250 A on transformer terminals - shockproof according to VBG4
  - at currents higher than approx. 250 A with bolt connection - shock protection has to be ensured by the installation

Standards and basics:
- VDE0570-1 (EN61558-1 / IEC61558-1) – follow-up standard for VDE0550-1 „Safety of transformers, power packs and the like“
- VDE0570-2-20 (EN61558-2-20 / IEC61558-2-20) – follow-up standard for VDE0550-5 „Particular requirements for small reactors“

c US on request

- Variants of voltage:
230 V (other voltages on request)

- KD



Remark:
When inquiring for a reactor with other nominal values you should consider that following data is decisive for the calculation of a line or commutating reactor, as long the **short-circuit voltage - uk** (voltage drop) shall amount 4%

- nominal voltage (phase voltage)	**- U in Volt**
- nominal current	**- I_N in Ampere**
- inductance	**- L in mH**
- effective current	**- Ieff**

To do the calculation, the **nominal current (I_N)** has to be known (herewith the effective current - nominal current + effect of the current harmonics - has to be considered).

Inductance, nominal current, dimensions and weights for the types KD

Nominal power in kVA = type designation	Inductance at nominal voltage 230 V in mH	Nominal current at nominal voltage 230 and uk 4% in A (eff)	a in mm	b in mm	c in mm	d in mm	e in mm	f in mm	Cu-weight in kg	Total weight in kg
0,05	5,86	5	78	60	90	56	48	4,8	0,3	1,2
0,075	2,93	10	85	65	98	64	50	4,8	0,4	1,5
0,1	1,46	20	85	80	98	64	64	4,8	0,45	2,0
0,13	0,98	30	96	75	105	84	62	5,8	0,65	2,3
0,16	0,73	40	96	85	105	84	73	5,8	0,8	2,8
0,2	0,65	45	105	95	115	80,5	73	5,8	0,9	3,2
0,25	0,59	50	120	95	125	90	74	5,8	1,0	3,8
0,32	0,53	55	120	105	125	90	85	5,8	1,2	4,7
0,4	0,49	60	120	105	125	90	85	5,8	1,4	5,6
0,5	0,45	65	120	125	125	90	104	5,8	2,0	6,6
0,63	0,42	70	150	115	150	122	90	7,0	2,6	7,5
0,8	0,39	75	150	130	150	122	106	7,0	3,2	9,7
1,0	0,37	80	174	125	170	135	86	7,0	4,0	11,5
1,5	0,34	85	174	155	170	135	116	7,0	5,0	16,4
2,0	0,33	90	195	180	185	150	140	10,0	6,5	22,8
2,5	0,29	100	195	190	185	150	150	10,0	8,0	26,2

Options (on request)
- Installation in enclosure (see page 21)
- Snap-on fixings (up to size 0,2 kVA)
- Reactors with higher powers
- Adding of elements for temperature monitoring (e.g. PTC thermistors)
- Additional tappings and windings
- Reactors in horizontal construction form