

SMD SUPER POWER INDUCTORS

Series **SP - O** *Completely shielded*



FEATURES

- ◆ Low profile.
- ◆ Large Current.
- ◆ Low DCR.
- ◆ High Frequency(to 1MHz)

APPLICATIONS

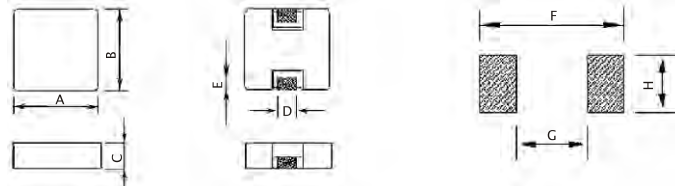
- ◆ Laptop and notebook computers.
- ◆ DC/DC converter in distributed power systems or VRM applications.
- ◆ Thin type on-board power supply module for exchanger.
- ◆ Inductor for general purpose use.

PRODUCT IDENTIFICATION

SP 06 O 30 1 M 10U
a b c d e f g

- a : Type of products - SMD High Power Inductors SP series.
 b : Dimension(mm) - 06 : 6.6x7.1, 10 : 10.5X11.5, 12 : 12.8x13.5
 c : Materials - O = By Modeled
 d : Thickness(mm) - Reference to SHAPES AND DIMENSION C
 e : Packing(PCS / REEL) - 1 = 1,000 G=400 I = 500 Q=700 S=800
 f : Tolerance - M : ±20%
 g : Inductance - 100N = 0.1uH, 10U = 10.0 uH, 1M2 = 1200uH

SHAPES & DIMENSIONS



Unit : mm

Type	A	B	C	D	E	F	G	H
SP06O30	6.6±0.3	7.1±0.3	3.0 max	3.0±0.3	1.6±0.3	7.4 typ.	3.7 typ.	3.5 typ.
SP10O40	10.5±0.5	11.5±1.0	4.0 max	2.5±0.5 *11	2.3±0.5	13.0 typ.	6.0 typ.	4.0 typ.
SP10O42	10.5±0.5	11.5±1.0	4.2 max	2.0±0.5	2.3±0.5	13.0 typ.	6.0 typ.	4.0 typ.
SP10O45	10.5±0.5	11.5±1.0	4.5 max	2.5±0.5 *21	2.3±0.5	13.0 typ.	6.0 typ.	4.0 typ.
SP10O50	10.5±0.5	11.5±1.0	5.0 max	2.5±0.5 *31	2.3±0.5	15.0 typ.	6.0 typ.	4.0 typ.
SP12O40	12.8±0.5	13.5±1.0	4.0 max *41	3.8±1.0 *42	2.5±0.5 *43	15.0 typ.	6.0 typ.	5.0 typ.
SP12O42	12.8±0.5	13.5±1.0	4.2 max	2.5±0.5	2.0±0.5	15.0 typ.	6.0 typ.	5.0 typ.
SP12O50	12.8±0.5	13.5±1.0	5.0 max	3.8±1.0	2.5±0.5	15.0 typ.	6.0 typ.	5.0 typ.
SP12O65	12.8±0.5	13.5±1.0	6.5 max	3.8±1.0	2.5±0.5	15.0 typ.	6.0 typ.	5.0 typ.
SP12O70	12.8±0.5	13.5±1.0	7.0 max	3.8±1.0	2.5±0.5	15.0 typ.	6.0 typ.	5.0 typ.

- ◆ 11:2.5uH=2.15 typ. 3.3uH=2.0±0.5
- ◆ 21:2.5uH=2.15 typ. 3.3uH=2.0±0.5
- ◆ 31:3.3uH=2.0±0.5
- ◆ 41:4.7uH=4.2 max.
- ◆ 42:0.82uH=3.1±0.5 2.2uH' 3.3uH=3.0±0.5
- ◆ 43:2.2uH' 3.3uH=2.0±0.5

SMD SUPER POWER INDUCTORS

Series **SP-O** *Completely shielded* ELECTRICAL CHARACTERISTICS

Part No	Inductance (μ H)	Tolerance (\pm %)	Heat Rating D.C (A)	Saturation D.C (A)	DCR m Ω @25°C typ.	DCR m Ω @25°C max.
SP06O301M100N	0.100	20	32.5	60	1.5	1.7
SP06O301M200N	0.200	20	24	41	2.4	3
SP06O301M220N	0.220	20	23	40	2.5	2.8
SP06O301M330N	0.330	20	20	30	3.5	3.9
SP06O301M470N	0.470	20	17.5	26	4	4.2
SP06O301M680N	0.680	20	15.5	25	5	5.5
SP06O301M820N	0.820	20	13	24	7	8.5
SP06O301M1U	1.000	20	11	22	9	10
SP06O301M1U5	1.500	20	9	18	14	15
SP06O301M2U2	2.200	20	8	14	18	20
SP06O301M3U3	3.300	20	6	13.5	28	30
SP06O301M4U7	4.700	20	5.5	10	37	40
SP06O301M6U8	6.800	20	4.5	8	54	60
SP06O301M8U2	8.200	20	4	7.5	64	68
SP06O301M10U	10.000	20	3	7	102	105
SP10O40QM220N	0.220	20	38	50	0.6	0.8
SP10O40QM360N	0.360	20	30	50	1.1	1.2
SP10O40QM470N	0.470	20	28	45	1.5	1.7
SP10O40QM560N	0.560	20	25	40	1.6	1.8
SP10O40QM680N	0.680	20	25	30	1.6	1.8
SP10O40QM880N	0.880	20	20	25	2.3	2.6
SP10O40QM1U	1.000	20	21	30	2.8	3.2
SP10O40QM1U5	1.500	20	15	20	4.5	5
SP10O40QM2U	2.000	20	13	13	5.2	6.1
SP10O40QM2U2	2.200	20	14	16	5.5	6.3
SP10O40QM2U5	2.500	20	13	18	8.5	9.5
SP10O42QM3U3	3.300	20	10	12	9	11
SP10O45QM220N	0.220	20	38	50	0.6	0.8
SP10O45QM680N	0.680	20	25	30	1.6	1.8
SP10O45QM1U	1.000	20	21	30	2.5	2.8
SP10O45QM2U5	2.500	20	13	18	8.5	9.5
SP10O45QM3U3	3.300	20	10	14.5	9	11
SP10O50QM900N	0.900	20	21	30	2.4	2.7
SP10O50QM3U3	3.300	20	10	15	9	11
SP12O40SM470N	0.470	20	32	55	1.4	1.9
SP12O40SM680N	0.680	20	28	46	2.1	2.5
SP12O40SM800N	0.800	20	25	33	2.5	3.3
SP12O40SM820N	0.820	20	25	44	2.7	3.1
SP12O40SM900N	0.900	20	24	40	3	3.5
SP12O40SM1U	1.000	20	24	38	3	3.7
SP12O40SM2U2	2.200	20	16	22	6.4	7.6
SP12O40SM3U3	3.300	20	14	20	7.5	8.4
SP12O42SM4U7	4.700	20	11	15	10.5	12

Measured Frequency of inductance is 100KHz.

SMD SUPER POWER INDUCTORS

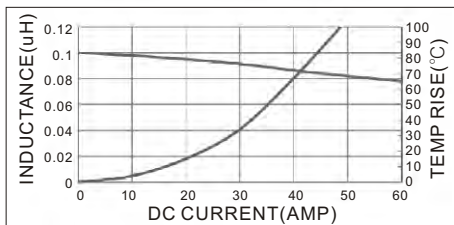
Series **SP-O** Completely shielded ELECTRICAL CHARACTERISTICS

Part No	Inductance (μH)	Tolerance (±%)	Heat Rating D.C (A)	Saturation D.C (A)	DCR mΩ @25°C typ.1	DCR mΩ @25°C max.
SP12O50IM330N	0.330	20	42	80	0.85	1.2
SP12O50IM470N	0.470	20	38	65	1.1	1.4
SP12O50IM560N	0.560	20	36	55	1.3	1.6
SP12O50IM680N	0.680	20	34	51	1.5	1.8
SP12O50IM820N	0.820	20	31	50	2	2.4
SP12O50IM1U	1.000	20	29	50	2.1	2.65
SP12O50IM1U5	1.500	20	23	43	3.6	4.3
SP12O50IM2U	2.000	20	20	32	5.3	6.1
SP12O50IM2U2	2.200	20	20	30	4.6	5.8
SP12O65GM300N	0.300	20	45	70	0.7	0.85
SP12O65GM470N	0.470	20	41	63	1	1.3
SP12O65GM500N	0.500	20	41	63	1	1.3
SP12O65GM560N	0.560	20	37	60	1.2	1.5
SP12O65GM680N	0.680	20	35	60	1.4	1.7
SP12O65GM820N	0.820	20	33	48	1.6	2.1
SP12O65GM1U	1.000	20	32	46	1.7	2.1
SP12O65GM1U5	1.500	20	27	40	2.5	3.15
SP12O65GM1U8	1.800	20	24	36	2.8	3.4
SP12O65GM2U2	2.200	20	22	36	3.8	4.8
SP12O65GM3U3	3.300	20	18	27	5.7	7.1
SP12O70GM1U	1.000	20	25	35	1.3	1.5
SP12O70GM1U5	1.500	20	21	30	2.1	2.4

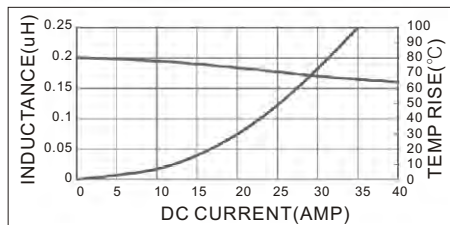
Measured Frequency of inductance is 100KHz.

CURVE

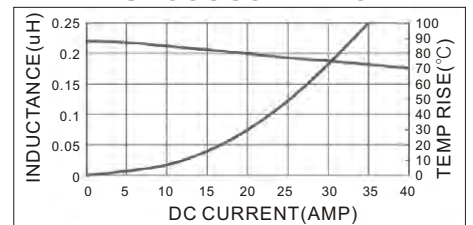
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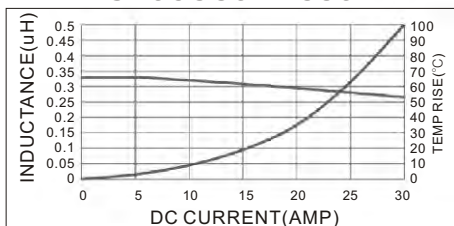
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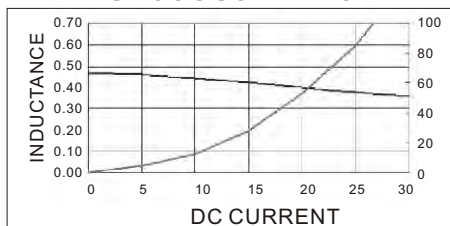
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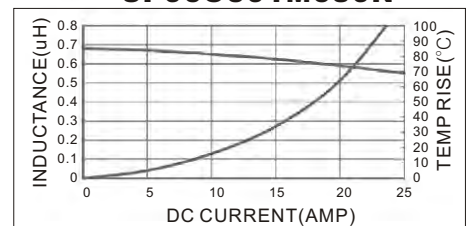
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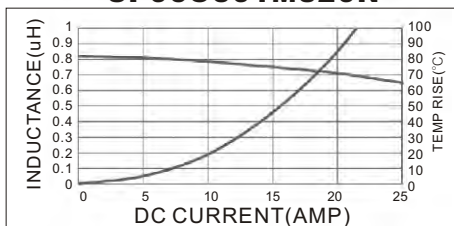
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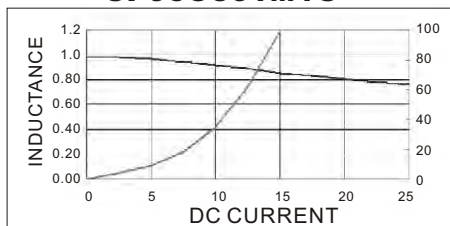
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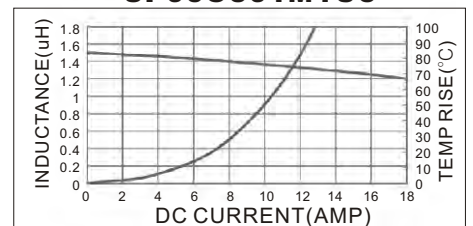
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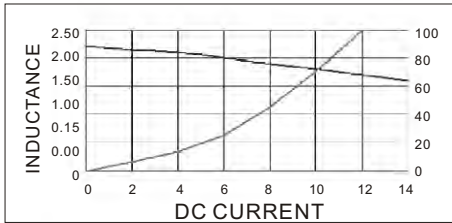


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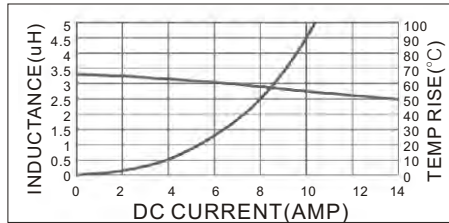
Series **SP-O** Completely shielded

CURVE

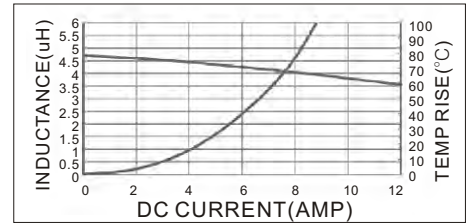
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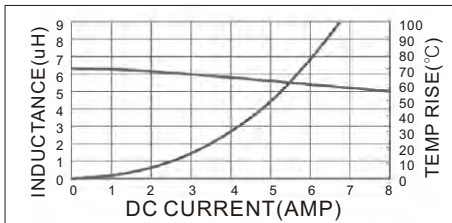
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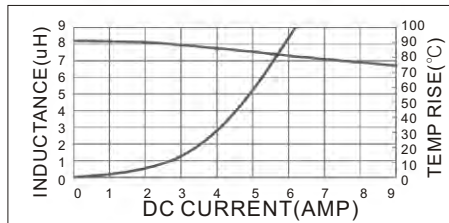
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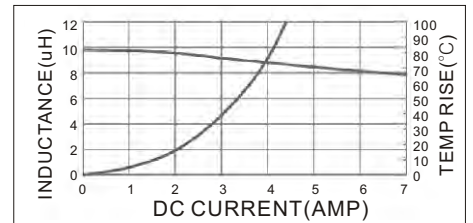
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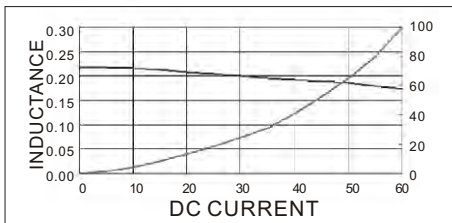
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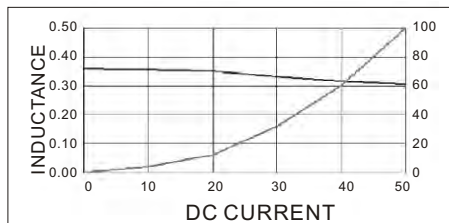
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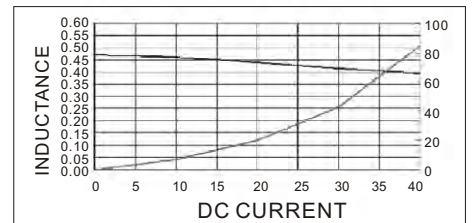
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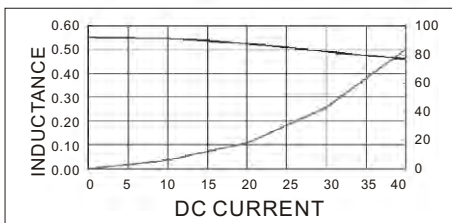
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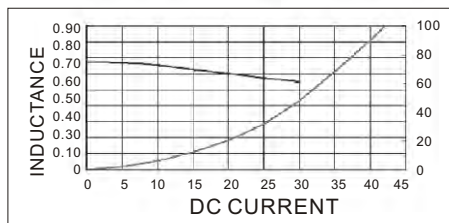
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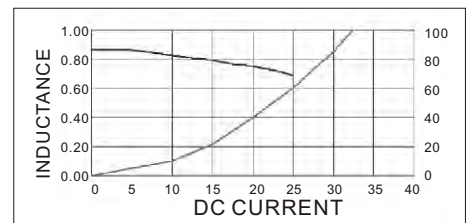
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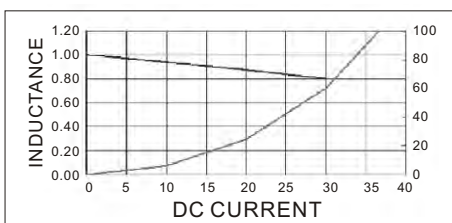
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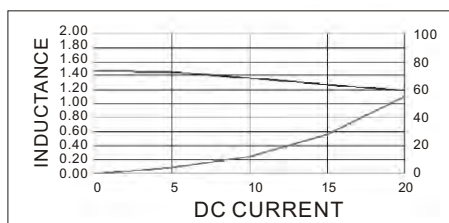
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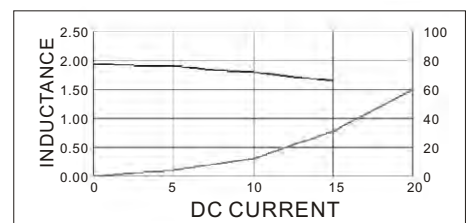
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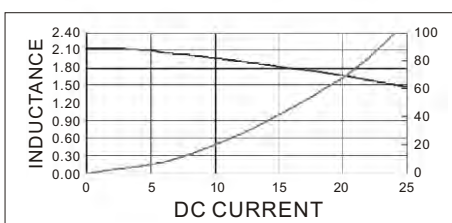
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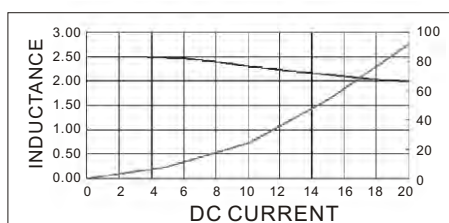
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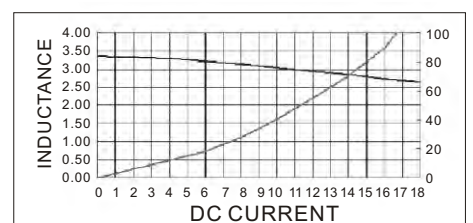
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SP10040QM2U5



SP10042QM3U3

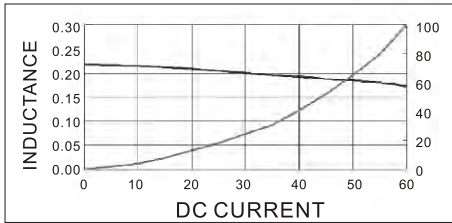


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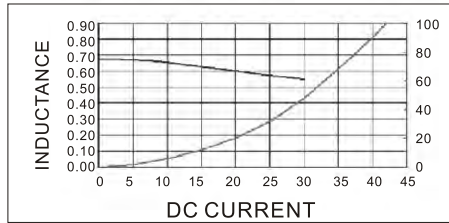
Series **SP-O** Completely Shielded

CURVE

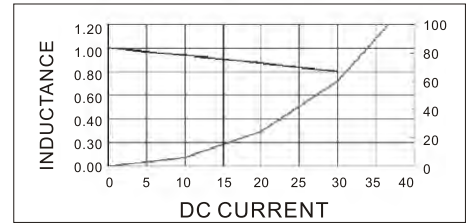
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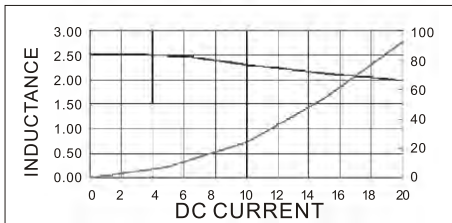
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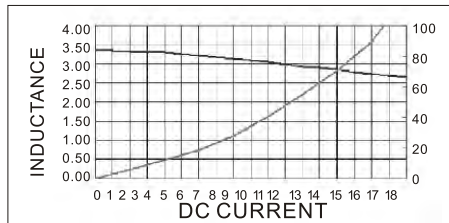
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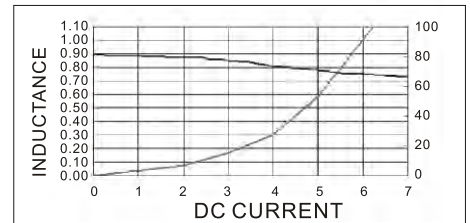
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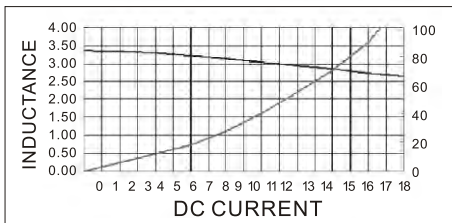
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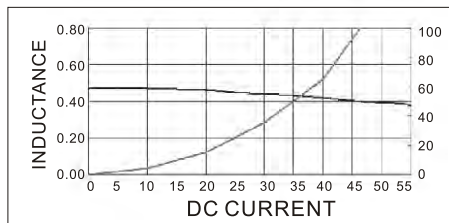
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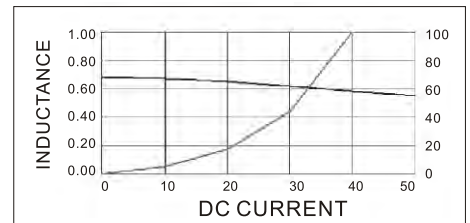
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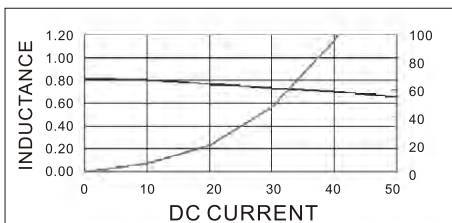
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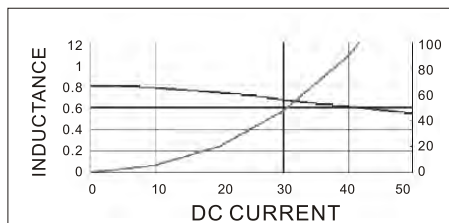
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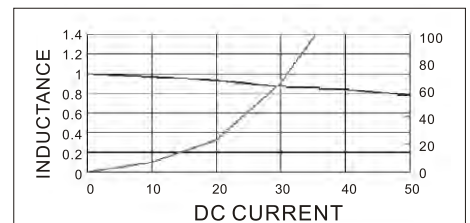
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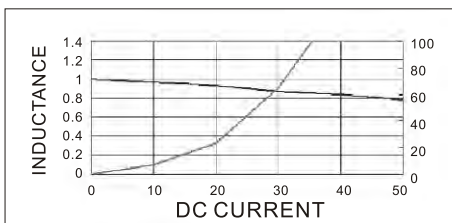
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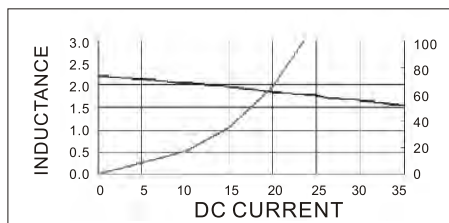
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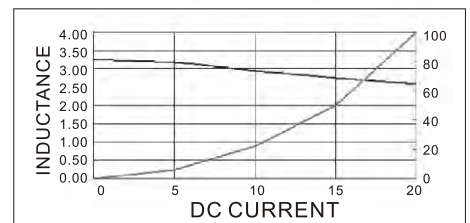
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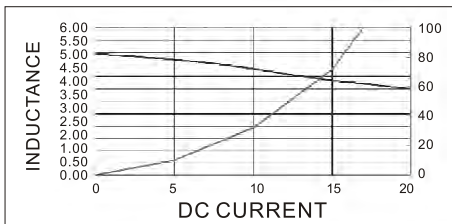
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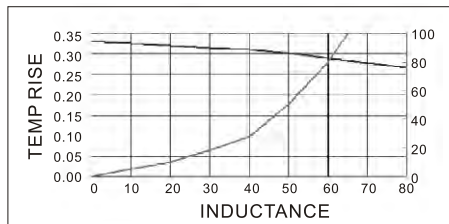
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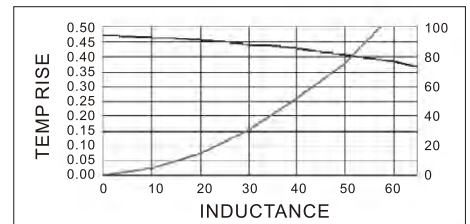
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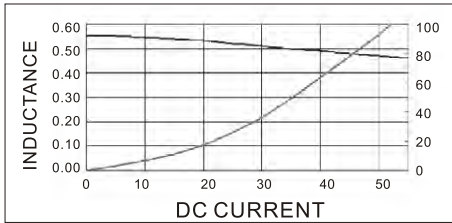


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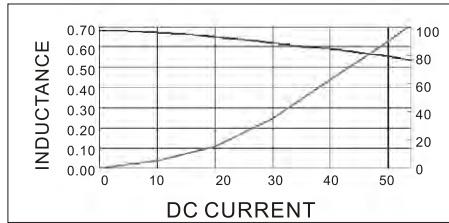
Series **SP-O** Completely shielded

CURVE

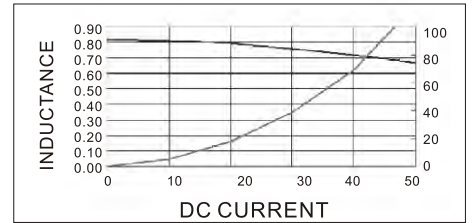
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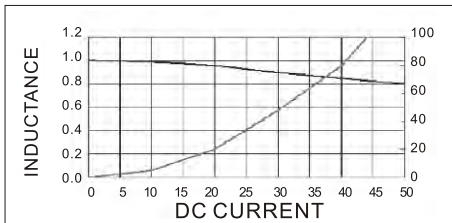
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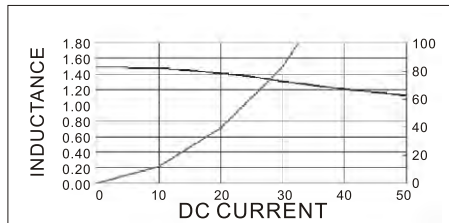
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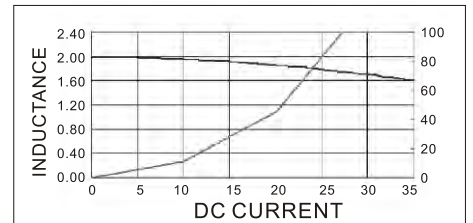
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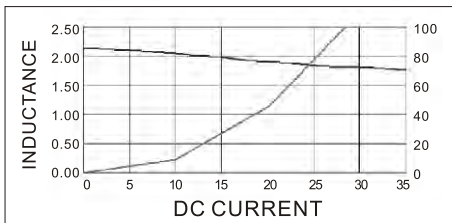
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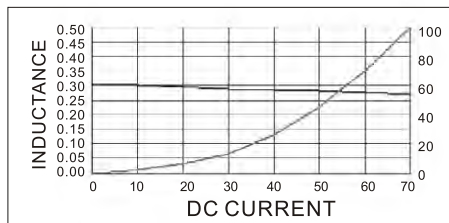
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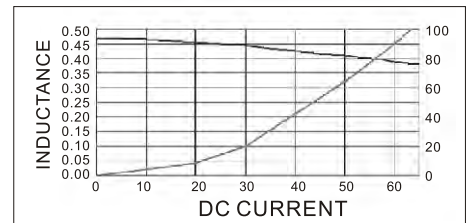
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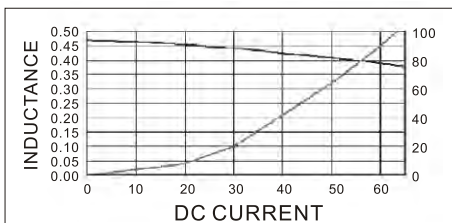
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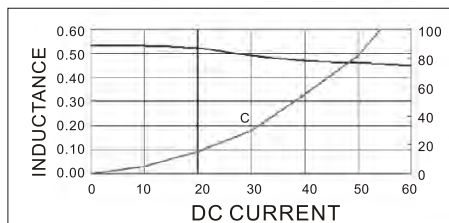
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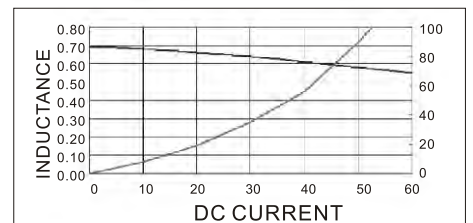
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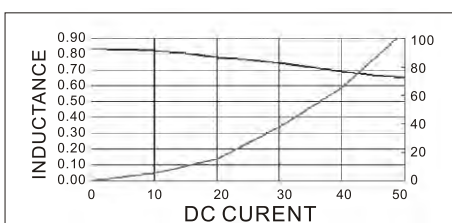
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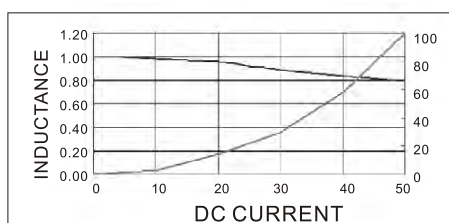
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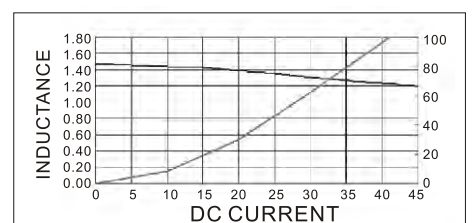
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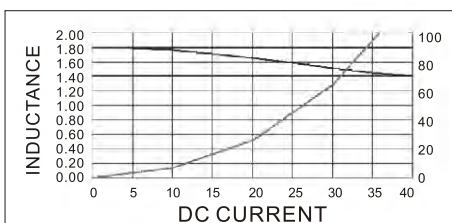
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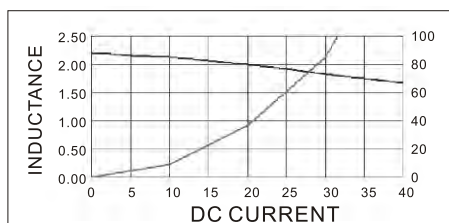
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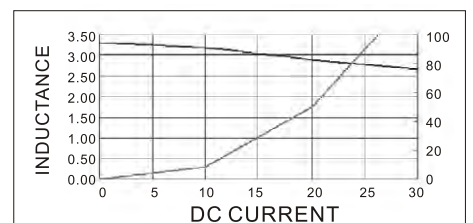
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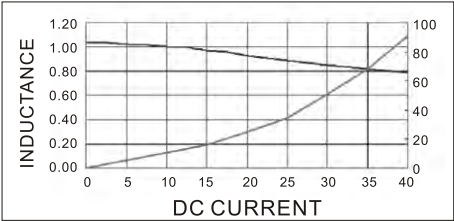


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Series **SP-O** *Completely shielded*

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