

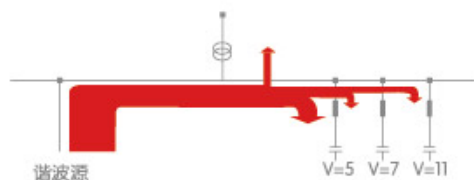


调谐电抗器 (ATR) Tuning Reactor

产品概述 (Product Introduction)

现代电力电子设备的大量使用产生的非线性电流正以谐波方式影响电网并加重电网污染，并导致电容器，变压器及传输设备过载并故障，对测量，传动，计算等设备产生的严重干扰，谐振及电压畸变还造成供电事故。串联电抗器得以改善与避免。电容器串联电抗器后谐振频率低于系统最低（一般为5次及7次），使其在工频下呈容性，以改善功率因数，而在谐振并无放大谐波之虑，良好的阻抗匹配后，电容器组可吸收谐波电流（如5次）30%-60%。

The nonlinear currents generated by the massive use of modern power and electric equipment are impacting the power grid and aggravate its pollution in the harmonic form, cause overload failures to capacitors, transformers and transmission devices and generate serious interference to measuring, transmitting and calculating devices; in addition, resonance and voltage distortions may also result in power supply accidents. Series reactors could effectively improve or avoid such problems. After installing the capacitor and reactor in series, the resonance frequency is lower than the minimum of the system (usually 5th and 7th waves), so that compatibility is showed under power frequency and power factor is improved; meanwhile, there is no need to worry about the amplification of harmonic wave. With satisfactory impedance matching, the capacitor bank could absorb 30% to 60% of the harmonic currents (5th harmonic wave, for example).



去波示意图

To the wave schematic diagram

产品应用 (Product Application)

工作频率 Operating frequency	50Hz-60Hz
额定电流 Rated operating current	5A-2000A
工作电压 Rated operating voltage	220V-10KV
温升 Temperature rise	≤95K
噪音 Noise	≤65dB
三相平衡度 Three-phase equilibrium degree	-5%...+5%
抗电强度 Reactive Strength	Core-Winding 3000VAC/50Hz/5mA/10S Free of arcing breakage (fitted in factory)
绝缘电阻 Insulation Resistance	1000VDC, insulation resistance ≥100MΩ
防护等级 Degree of protection	IP00-IP20
失调系数 Reduction factor	5,6,7 %, 7 %, 14 %
性能范围 Pn Performance range Pn	5 kvar ... 100 kvar
监控 Monitoring	Temperature switch is integrated, contacts are fitted on terminals.
环境温度/热绝缘等级 Temperature classes	ta 40 ° C/F,H
安装海拔高度 Installation altitude	≤2000 m above sea level
存储温度 Storage temperature	-25 ° C ... +55 ° C
运输温度 Transport temperature	-25 ° C ... +70 ° C
允许的额定湿度 Permissible humidity rating	Humidity 5 % ... 95 % occasional condensation permissible

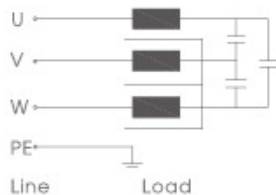
执行标准 (Applicable Standards)

IEC289: 1987 Reactor
GB10229-88 Reactor (equiv IEC289: 1987)
JB9644-1999 Reactors used for semiconductor electrical driving

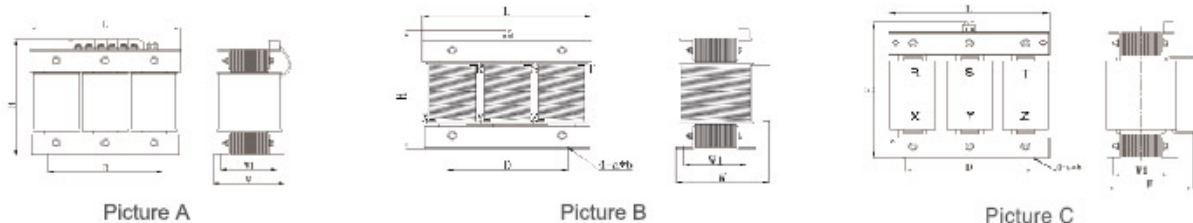
成品识别码 (Product Identification Code)

ATR	-	0043	-	1M29	-	0.4SAB/L
调谐电抗器		电抗器容量		额定电感		S:三相 B:箔绕 A:铝 C:铜 L:立绕

典型电路图



■ 产品尺寸图 (Product Size)



Picture A

Picture B

Picture C

$p=7\%$, $L=$ 恒定, 不超过 $1.4 \cdot I_{thmax}$, $f_{res}=189\text{Hz}$ Choking factor $p=7\%$, $L=$ Constant to $1.4 \cdot I_{thmax}$, $f_{res}=189\text{Hz}$

电容量 480V (Kvar)	有效输出 容量 (Kvar)	额定 电流 (A)	电感量 (mH)	铝材电抗器型号	鸿康对应型号	图号	绝缘 等级	重量 (kg)	尺寸:MM(未注公差尺寸按GB/T-1804-2000-C级执行)					
									Lmax	Hmax	D ± 1.0	Wmax	W1 ± 2.0	a*b
5	3.75	5.4	10.30	CKSG-0.35K/0.48-7%	ATR-0006-10M3-0.4SC	A	F、H	5	160	160	94	100	80	6*15
10	7.5	10.8	5.16	CKSG-0.7K/0.48-7%	ATR-0011-5M16-0.4SC		F、H	8	160	160	94	125	100	6*15
15	11.25	16.1	3.45	CKSG-1.05K/0.48-7%	ATR-0016-3M45-0.4SAL		F、H	10	210	170	85	175	95	10*15
16.7	12.5	18.1	3.06	CKSG-1.17K/0.48-7%	ATR-0018-3M06-0.4SAL	A	F、H	10	210	170	85	175	95	10*15
20	15	21.5	2.58	CKSG-1.4K/0.48-7%	ATR-0022-2M58-0.4SAL		F、H	11	210	170	85	175	95	10*15
25	18.75	27	2.05	CKSG-1.75K/0.48-7%	ATR-0027-2M05-0.4SAL		F、H	11	210	180	85	175	95	10*15
30	22.5	32.1	1.73	CKSG-2.1K/0.48-7%	ATR-0032-1M73-0.4SAL	B	F、H	13	210	200	85	175	105	10*15
33.3	25	36.1	1.53	CKSG-2.33K/0.48-7%	ATR-0036-1M53-0.4SAL		F、H	14	250	215	120	165	90	10*20
40	30	43	1.29	CKSG-2.8K/0.48-7%	ATR-0043-1M29-0.4SAL		F、H	16	250	215	120	175	100	10*20
50	37.5	54	1.03	CKSG-3.5K/0.48-7%	ATR-0054-1M03-0.4SAL	B	F、H	21	250	215	120	175	100	10*20
60	45	64.1	0.86	CKSG-4.2K/0.48-7%	ATR-0064-0M86-0.4SAL		F、H	21	250	215	120	205	120	10*20
66.6	50	72.2	0.77	CKSG-4.66K/0.48-7%	ATR-0072-0M77-0.4SAL		F、H	25	250	215	120	205	120	10*20
75	56	80.8	0.68	CKSG-5.25K/0.48-7%	ATR-0081-0M68-0.4SAL	B	F、H	25.5	250	215	120	215	130	10*20
80	60	86	0.65	CKSG-5.6K/0.48-7%	ATR-0086-0M65-0.4SAL		F、H	25.5	250	215	120	215	130	10*20
25	18.75	27	2.05	CKSG-1.75K/0.48-7%B	ATR-0027-2M05-0.4SAB		F、H	14.5	235	170	150	185	101	9*17
30	22.5	32.1	1.73	CKSG-2.1K/0.48-7%B	ATR-0032-1M73-0.4SAB	C	F、H	15	235	170	150	185	101	9*17
33.3	25	36.1	1.53	CKSG-2.33K/0.48-7%B	ATR-0036-1M53-0.4SAB		F、H	15	235	170	150	185	101	9*17
40	30	43	1.29	CKSG-2.8K/0.48-7%B	ATR-0043-1M29-0.4SAB		F、H	22.5	265	225	160	195	113	9*17
50	37.5	54	1.03	CKSG-3.5K/0.48-7%B	ATR-0054-1M03-0.4SAB	C	F、H	23.5	265	225	160	195	113	9*17
60	45	64.1	0.86	CKSG-4.2K/0.48-7%B	ATR-0064-0M86-0.4SAB		F、H	23.5	265	225	160	195	113	9*17
66.6	50	72.2	0.77	CKSG-4.66K/0.48-7%B	ATR-0072-0M77-0.4SAB		F、H	24.5	265	225	160	195	113	9*17
75	56	80.8	0.68	CKSG-5.25K/0.48-7%B	ATR-0081-0M68-0.4SAB	C	F、H	30.5	295	265	214	205	112	11*18
80	60	86	0.645	CKSG-5.6K/0.48-7%B	ATR-0086-0M65-0.4SAB		F、H	30.5	295	265	214	205	112	11*18

$p=14\%$, $L=$ 恒定, 不超过 $1.4 \cdot I_{thmax}$, $f_{res}=134\text{Hz}$ Choking factor $p=14\%$, $L=$ Constant to $1.4 \cdot I_{thmax}$, $f_{res}=134\text{Hz}$

电容量 480V (Kvar)	有效输出 容量 (Kvar)	额定 电流 (A)	电感量 (mH)	铝材电抗器型号	鸿康对应型号	图号	绝缘 等级	重量 (kg)	尺寸:MM(未注公差尺寸按GB/T-1804-2000-C级执行)					
									Lmax	Hmax	D ± 1.0	Wmax	W1 ± 2.0	a*b
15	10	14.6	8.19	CKSG-2.1K/0.525-14%	ATR-0015-8M19-0.4SA	A	F、H	15	250	215	120	175	100	10*20
20	13.5	19.5	6.15	CKSG-2.8K/0.525-14%	ATR-0020-6M15-0.4SA		F、H	17	250	215	120	185	110	10*20
25	15	24.3	4.89	CKSG-3.5K/0.525-14%	ATR-0024-4M89-0.4SA		F、H	20	250	215	120	195	120	10*20
30	18.75	29.2	4.1	CKSG-4.2K/0.525-14%	ATR-0029-4M10-0.4SA	B	F、H	20.5	250	215	120	195	120	10*20
37.5	25	36.5	3.27	CKSG-5.25K/0.525-14%	ATR-0036-3M27-0.4SA		F、H	25.5	250	215	120	215	140	10*20
40	25	39	3.07	CKSG-5.6K/0.525-14%	ATR-0039-3M07-0.4SA		F、H	28	300	250	120	195	120	10*20
50	30	48.6	2.45	CKSG-7.0K/0.525-14%	ATR-0048-2M45-0.4SA	B	F、H	29	300	250	120	195	120	10*20
60	37.5	58.3	2.05	CKSG-8.4K/0.525-14%	ATR-0058-2M05-0.4SA		F、H	34.5	300	265	120	205	130	10*20
75	50	73.1	1.64	CKSG-10.5K/0.525-14%	ATR-0074-1M64-0.4SA		F、H	37.5	300	265	120	215	140	10*20
25	15	24.3	4.89	CKSG-3.5K/0.525-14%B	ATR-0024-4M89-0.4SAB	C	F、H	28	315	210	214	215	122	11*18
30	18.75	29.2	4.1	CKSG-4.2K/0.525-14%B	ATR-0029-4M10-0.4SAB		F、H	29	315	210	214	215	122	11*18
37.5	25	36.5	3.27	CKSG-5.25K/0.525-14%B	ATR-0036-3M27-0.4SAB		F、H	31	315	225	214	215	122	11*18
40	25	39	3.07	CKSG-5.6K/0.525-14%	ATR-0039-3M07-0.4SA	C	F、H	33	315	225	214	225	132	11*18
50	30	48.6	2.45	CKSG-7.0K/0.525-14%B	ATR-0048-2M45-0.4SAB		F、H	35	315	225	214	225	132	11*18
60	37.5	58.3	2.05	CKSG-8.4K/0.525-14%B	ATR-0058-2M05-0.4SAB		F、H	42.5	315	265	214	235	142	11*18
75	50	73.1	1.64	CKSG-10.5K/0.525-14%B	ATR-0074-1M64-0.4SAB	C	F、H	47	315	265	214	255	162	11*18