















FGC1-D Series AC Contactor

Technical data

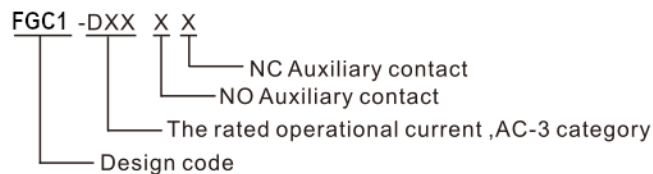
Standard	IEC60947-4-1	
Electric ratings	Up to 95A,690V	
Approvals	SEMKO, CE, CB, TUV	
Operation range	Pick-up voltage	(85%~110%) U _c
	Drop-out voltage	(20%~75%) U _c
Rated insulation voltage U _i (V)	690	
Rated impulse withstand voltage U _{imp} (kV)	6	
Rated frequency(Hz)	50/60	
Utilization category	AC-3, AC-4	
Degree of protection	IP20	
Ambient air temperature(°C)	-5 to +40, max.95%humidity	
Storage temperature(°C)	-40~+75	
Maximum operating altitude (meters)	≤2000	
Flame resistance	V1	



1. Selection and ordering data

	Rated Operational current in category AC-3 400V (A)	Number of poles		Instantaneous auxiliary contacts		Standard control circuit voltages (VAC)	Rated frequency (Hz)	Type	Model
									
	9	3	-	1	-	230	50/60	3NO+NO	FGC1-D0910
		3	-	-	1	230	50/60	3NO+NC	FGC1-D0901
		4	-	-	-	230	50/60	4NO	FGC1-D09004
		2	2	-	-	230	50/60	2NO+2NC	FGC1-D09008
	12	3	-	1	-	230	50/60	3NO+NO	FGC1-D1210
		3	-	-	1	230	50/60	3NO+NC	FGC1-D1201
		4	-	-	-	230	50/60	4NO	FGC1-D12004
		2	2	-	-	230	50/60	2NO+2NC	FGC1-D12008
	18	3	-	1	-	230	50/60	3NO+NO	FGC1-D1810
		3	-	-	1	230	50/60	3NO+NC	FGC1-D1801
		3	-	1	-	230	50/60	3NO+NO	FGC1-D2510
		3	-	-	1	230	50/60	3NO+NC	FGC1-D2501
	25	4	-	-	-	230	50/60	4NO	FGC1-D25004
		2	2	-	-	230	50/60	2NO+2NC	FGC1-D25008
		3	-	1	-	230	50/60	3NO+NO	FGC1-D3210
		3	-	-	1	230	50/60	3NO+NC	FGC1-D3201
	32	3	-	1	1	230	50/60	3NO+NO+NC	FGC1-D4011
		4	-	-	-	230	50/60	4NO	FGC1-D40004
		2	2	-	-	230	50/60	2NO+2NC	FGC1-D40008
		3	-	1	1	230	50/60	3NO+NO+NC	FGC1-D5011
	40	4	-	-	-	230	50/60	4NO	FGC1-D50004
		2	2	-	-	230	50/60	2NO+2NC	FGC1-D50008
		3	-	1	1	230	50/60	3NO+NO+NC	FGC1-D6511
		4	-	-	-	230	50/60	4NO	FGC1-D65004
	50	2	2	-	-	230	50/60	2NO+2NC	FGC1-D65008
		3	-	1	1	230	50/60	3NO+NO+NC	FGC1-D8011
		4	-	-	-	230	50/60	4NO	FGC1-D80004
		2	2	-	-	230	50/60	2NO+2NC	FGC1-D80008
	65	3	-	1	1	230	50/60	3NO+NO+NC	FGC1-D9511
		4	-	-	-	230	50/60	4NO	FGC1-D95004
		2	2	-	-	230	50/60	2NO+2NC	FGC1-D95008
		3	-	1	1	230	50/60	3NO+NO+NC	FGC1-D8011
	80	4	-	-	-	230	50/60	4NO	FGC1-D80004
		2	2	-	-	230	50/60	2NO+2NC	FGC1-D80008
		3	-	1	1	230	50/60	3NO+NO+NC	FGC1-D9511
		4	-	-	-	230	50/60	4NO	FGC1-D95004
	95	2	2	-	-	230	50/60	2NO+2NC	FGC1-D95008

2. Model explanation:

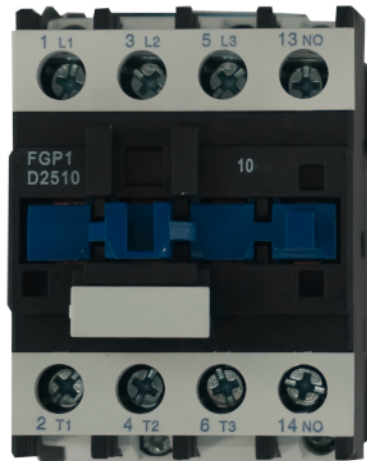


3. Refer to other coil voltage listed as followings:

Coil voltage(V)	24	36	48	110	127	220	230	240	380	415	440	480	500	600	660
50Hz	B5	C5	E5	F5	G5	M5	P5	U5	Q5	N5	R5	T5	S5	-	Y5
60Hz	B6	-	E6	F6	G6	M6	P6	U6	Q6	N6	R6	T6	-	S6	-
50/60Hz	B7	C7	E7	F7	G7	M7	P7	U7	Q7	N7	R7	T7	-	-	-

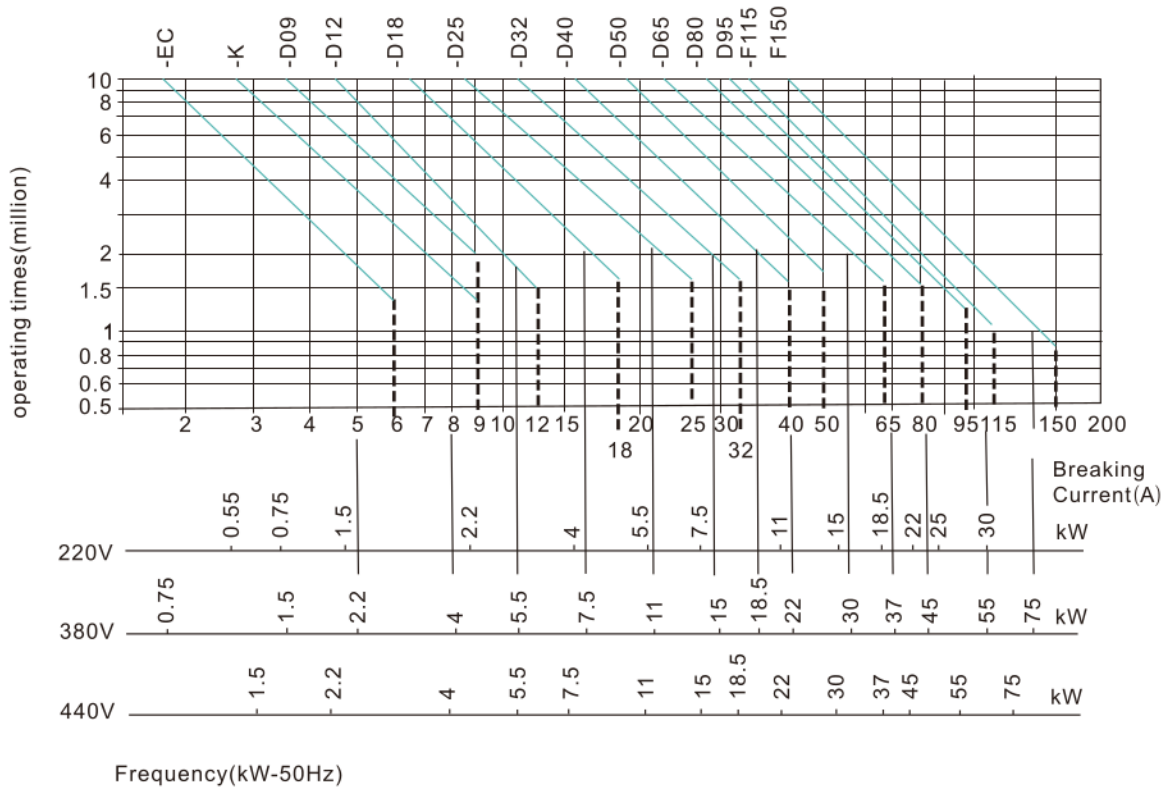
For technical data, see technical specifications for type **FGC1-D** Series

Technical specifications for FGC1-D Series

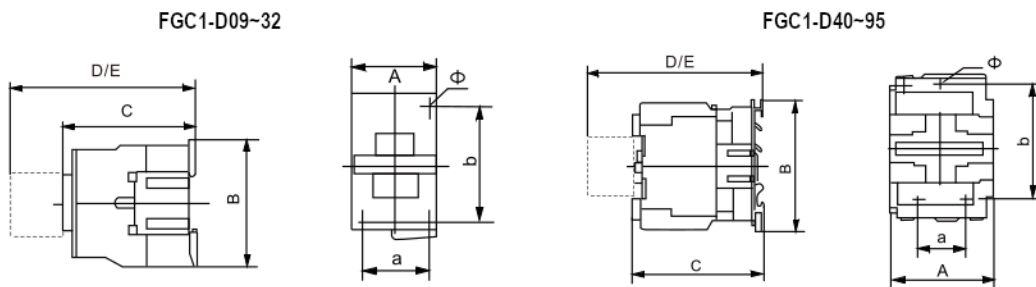


Type		FGC1-D										
		09	12	18	25	32	40	50	65	80	95	
Number of poles		3,4	3,4	3	3,4	3	3,4	3,4	3,4	3,4	3,4	
Rated operational current(A)	380V	In AC-3	9	12	18	25	32	40	50	65	80	95
		In AC-4	3.5	5	7.7	8.5	12	18.5	24	28	37	44
	660V	In AC-3	6.6	8.9	12	18	21	34	39	42	49	55
		In AC-4	1.5	2	3.8	4.4	7.5	9	12	14	17.3	21.3
440V In AC-1		20	25	32	40	50	60	80	80	110	125	
Rated conventional thermal current Ith(A)		20	25	32	40	50	60	80	80	125	125	
Rated making capacity(A) 400V		10 x Ie AC-3 or 12 x Ie AC-4										
Rated breaking capacity(A) 400V		8 x Ie AC-3 or 12 x Ie AC-4										
Rated operational power in category AC-3(kw)	220/230/240V	2.2	3	4	5.5	7.5	11	15	18.5	22	25	
	380/400V	4	5.5	7.5	11	15	18.5	22	30	37	45	
	415V	4	5.5	9	11	15	22	25	37	45	45	
	440V	4	5.5	9	11	15	22	30	37	45	45	
	660/690V	5.5	7.5	10	15	18.5	30	33	37	45	45	
Average impedance per pole(mΩ)		2.5	2.5	2.5	2	2	1.5	1.5	1.5	0.8	0.8	
Add-on auxiliary contact blocks	Front	FGA1-DN										
	Side	FGA8-DN										
	Front time delay	FGA2-DT/SGA3-DR										
	Front dust and damp protected	■										
Reversing contactor type		FGC2-D										
Associated thermal overload relays		FGR2-D13				FGR1-D23	FGR2-D-33					
Operation cycles (times/hour)	Electrical AC-3	1200	1200	1200	1200	600	600	600	600	600	600	
	Electrical AC-4	300	300	300	300	300	300	300	300	300	300	
	Mechanical	3600	3600	3600	3600	3600	3600	3600	3600	3600	3600	
Elechanical life(X 10 ³ times)	AC-3	1000	1000	1000	1000	800	800	600	600	600	600	
	AC-4	200	200	200	200	200	150	150	150	100	100	
Mechanical life(X 10 ⁶ times)		10	10	10	10	8	8	8	8	6	6	
Matching fuse model		RT16-20	RT16-20	RT16-32	RT16-40	RT16-50	RT16-63	RT16-80	RT16-80	RT16-100	RT16-125	
Tightening torque(N.m) Connection		1.2	1.2	1.7	2.0	2.5	5	5	5	9	9	

1. Electrical life curve for AC contactor FGC1-D

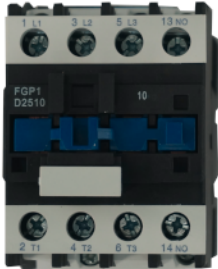




2. Overall and mounting dimensions (FGC1-D Series)



Type	A max	B max	C max	D max	E max	a	b	φ	
3P	FGC1-D09-12	47	76	82	113	133	34/35	50/60	2-φ4.5
	FGC1-D18	47	76	87	118	138	34/35	50/60	2-φ4.5
	FGC1-D25	57	86	95	126	146	40	48	2-φ4.5
	FGC1-D32	57	86	100	131	151	40	48	2-φ4.5
	FGC1-D40-65	77	129	116	145	165	40	100/110	3-φ6.5
4P	FGC1-D80-95	87	129	127	156	176	40	100/110	3-φ6.5
	FGC1-D09008-12008	47	76	82	113	133	34/35	50/60	2-φ4.5
	FGC1-D25008	57	86	95	126	146	40	48	2-φ4.5
	FGC1-D40008-65008	86	129	116/129	145	165	40	100/110	3-φ6.5
	FGC1-D80008-95008	97	129	127/140	156	176	40	100/110	3-φ6.5



FGP1-D Series DC Operated AC Contactors



Model	Rated operating current 380V AC-3(A)	Conventional thermal current(A)	Standard power ratings of 3phase motors 50-60Hz AC-3			Auxiliary contact		Type
			220V/230V (kW)	380V/400V (kW)	660V/690V (kW)			
FGP1-D0910	9	20	2.2	4	5.5	1	-	3P+NO
FGP1-D0901						-	1	3P+NC
FGP1-D1210	12	20	3	5.5	7.5	1	-	3P+NO
FGP1-D1201						-	1	3P+NC
FGP1-D1810	18	32	4	7.5	9	1	-	3P+NO
FGP1-D1801						-	1	3P+NC
FGP1-D2510	25	40	5.5	11	15	1	-	3P+NO
FGP1-D2501						-	1	3P+NC
FGP1-D3210	32	50	7.5	15	18.5	1	-	3P+NO
FGP1-D3201						-	1	3P+NC
FGP1-D4011	40	60	11	18.5	30	1	1	3P+NO+NC
FGP1-D5011	50	80	15	22	33	1	1	3P+NO+NC
FGP1-D6511	65	80	18.5	30	37	1	1	3P+NO+NC
FGP1-D8011	80	125	22	37	45	1	1	3P+NO+NC
FGP1-D9511	95	125	25	45	45	1	1	3P+NO+NC

F19 Series Contactor for Power Factor Contactors



Model	Rated Conventional Thermal Current Ith	Controllable power			Auxiliary contact	
		220V/230V (Kvar)	380V/400V (Kvar)	660V/690V (Kvar)		
FG19-2511	25	6	12	12	1	1
FG19-2502					-	2
FG19-2520					2	-
FG19-3211	32	8.5	16	16	1	1
FG19-3202					-	2
FG19-3220					2	-
FG19-4311	43	10	20	20	1	1
FG19-4302					-	2
FG19-4320					2	-
FG19-5012	50	12	25	25	1	2
FG19-5021					2	1
FG19-6312	63	15	30	30	1	2
FG19-6321					2	1
FG19-8012	80	22	37	37	1	2
FG19-8021					2	1
FG19-9512	95	23	45	45	1	2
FG19-9521					2	1
FG19-12512	125	25	50	50	1	2
FG19-12521					2	1

FGC1-F Series

AC Contactor

Technical data

Standard	IEC60947-4-1	
Electric ratings	Up to 800A, 1000V	
Approvals	CE	
Operation Range	Pick-up voltage	(85%~110%) U _c
	Drop-out voltage	(20%~75%) U _c
Rated insulation voltage U _i (V)	1000	
Rated impulse withstand voltage U _{imp} (kV)	8	
Rated frequency(Hz)	50/60	
Utilization category	AC-3,AC-4	
Degree of protection	IP20	
Ambient air temperature(°C)	-5 to+40,max.95%humidity	
Storage temperature(°C)	-40~+75	
Maximum operating altitude (meters)	≤2000	
Flame resistance	V1	



1. Model explanation:



FGC1 -FXXX

— The rated operational current ,AC-3 category

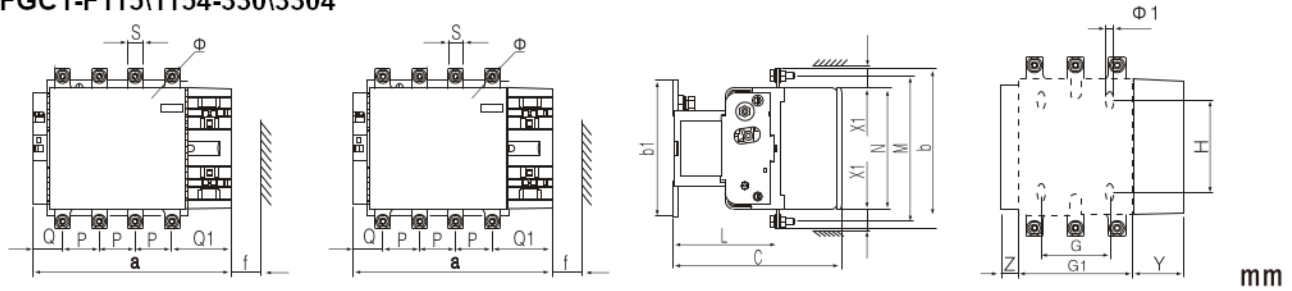
— Design code

2. Technical specifications for FGC1-F Series

Type	FGC1-F											
	115	150	185	225	260	330	400	500	630	780	800	
Number of poles	3,4	3,4	3,4	3,4	3,4	2,3,4	2,3,4	2,3,4	2,3,4	2,3,4	3	
current Ie(A) (Ue≤400V)	In AC-3	115	150	185	225	265	330	400	500	630	780	800
	In AC-1	200	250	275	315	350	400	500	700	1000	1600	1000
Rated conventional thermal current Ith(A)	200	250	275	315	350	400	500	700	900	1600	1000	
Rated making capacity(A) 1ms	10 x In AC-3 or 12 x In AC-4											
Rated breaking capacity(A) 1ms	8 x In AC-3 or 10 x In AC-4											
Rated operational power in category AC-3(kw)	220/230V	30	40	55	63	75	100	129	147	200	220	220
	380/400V	55	75	90	100	132	160	200	250	335	400	400
	415V	59	80	100	110	140	180	220	280	375	425	425
	440V	59	80	100	110	140	180	220	280	375	425	425
	500V	75	90	110	129	160	200	257	335	400	450	450
	660/690V	80	100	120	129	180	220	280	355	450	475	475
	1000V	65	65	100	140	147	160	185	335	450	450	450
Average impedance per pole(mΩ)	0.37	0.35	0.33	0.32	0.3	0.28	0.26	0.18	0.12	0.1	0.12	
Add-on auxiliary contact blocks	Front	FGA1-DN										
	Side	FGA8-DN										
	Front time delay	FGA2-DT/FGA3-DR										
	Front dust and damp protected	-										
Operation cycles (times/hour)	AC-1,AC-2,AC-3	1200	1200	600	600	600	600	600	600	600	600	600
	AC-4	300	300	300	300	300	300	300	300	300	300	300
Electrical life(X 10 ⁶ times)	1.2	1.2	1	1	0.8	0.8	0.8	0.8	0.8	0.8	0.6	
Mechanical life(X 10 ⁶ times)	10	10	6	6	6	6	6	6	6	6	3	
Matching fuse model	RT16-2	RT16-2	RT16 3	RT16-3	RT16-3	RT16-3	RT16-3	RT16-3	RT16-3	RT16-3	RT16-3	
Tightening torque(N.m) cable connection	10	18	18	35	35	35	35	35	58	58	58	

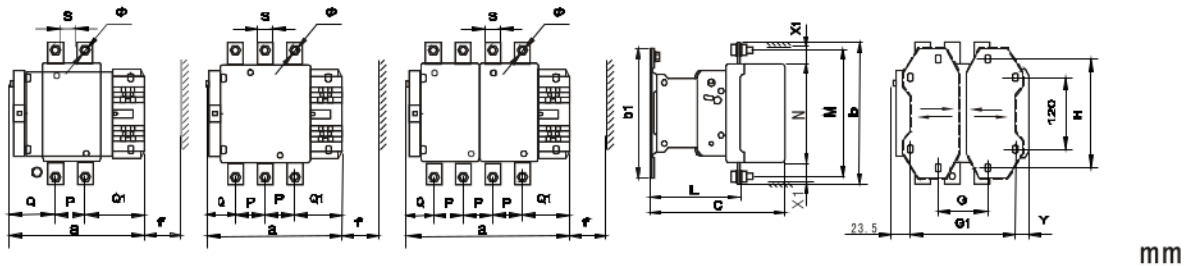
Overall and mounting dimensions(FGC1-F Series)

1. FGC1-F115\1154-330\3304



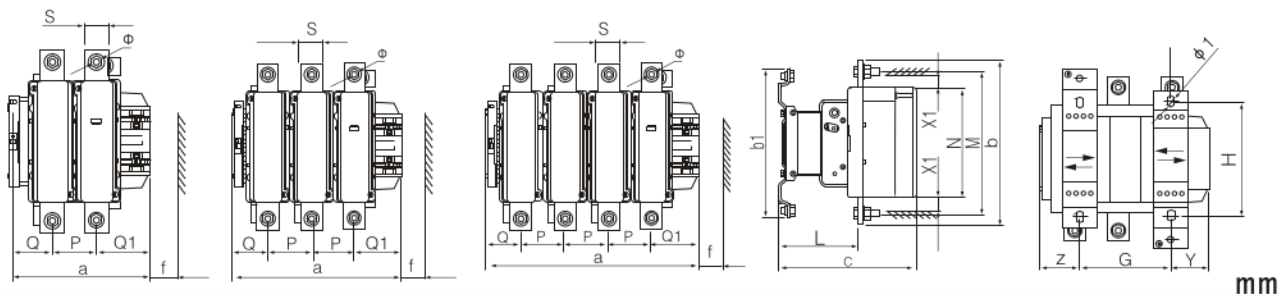
FGC1-F	a	P	Q	Q1	S	φ	f	b	b1	M	N	C	L	G	H	φ1	G1	Z	Y	X1	
																				500V≤	>500V
115	163.5	37	29.5	60	15	M6	131	162	137	147	124	171	107	80	120-106	6.5	106	13.5	44	10	15
1154	200.5	37	29.5	60	15	M6	131	162	137	147	124	171	107	80	120-106	6.5	143	13.5	44	10	15
150	163.5	40	26	57.5	20	M8	131	170	137	150	124	171	107	80	120-106	6.5	106	13.5	44	10	15
1504	200.5	40	25	55.5	20	M8	131	170	137	150	124	171	107	80	120-106	6.5	143	13.5	44	10	15
185	168.5	40	29	59.5	20	M8	130	174	137	154	127	181	113.5	80	120-106	6.5	111	13.5	44	10	15
1854	208.5	40	29	59.5	20	M8	130	174	137	154	127	181	113.5	80	120-106	6.5	151	13.5	44	10	15
225	168.5	48	21	51.5	25	M10	130	197	137	172	127	181	113.5	80	120-106	6.5	111	13.5	44	10	15
2254	208.5	48	17	47.5	25	M10	130	197	137	172	127	181	113.5	80	120-106	6.5	151	20.5	44	10	15
265	201.5	48	39	66.5	25	M10	147	203	145	178	147	213	141	96	120-106	6.5	140	20.5	38	10	15
2654	244.5	48	34	66.5	25	M10	147	203	145	178	147	213	141	96	120-106	6.5	186	20.5	38	10	15
330	213	48	43	74	25	M10	147	206	145	181	158	219	145	96	120-106	6.5	154.5	20.5	38	10	15
3304	261	48	43	74	25	M10	147	206	145	181	158	219	145	96	120-106	6.5	202.5	20.5	38	10	15

2. FGC1-F400\4004\4002\500\5004\5002



FGC1-F	a	P	Q	Q1	S	φ	f	b	b1	M	N	C	L	G	G1	H	φ1	Y	X1	
																			500V≤	>500V
4002	213	48	69	96	25	M10	151	206	209	181	158	219	145	80(66-102)	170(156-192)	180	8.5	19.5	15	20
400	213	48	43	74	25	M10	151	206	209	181	158	219	145	80(66-102)	170(156-192)	180	8.5	19.5	15	20
4004	261	48	43	74	25	M10	151	206	209	181	158	219	145	80(66-150)	170(156-240)	180	8.5	67.5	15	20
5002	233	50	76	102	30	M10	169	238	209	208	172	232	146	80(66-120)	170(156-210)	180	8.5	39.5	15	20
500	233	50	46	77	30	M10	169	238	209	208	172	232	146	80(66-120)	170(156-210)	180	8.5	39.5	15	20
5004	288	50	46	77	30	M10	169	238	209	208	172	232	146	140(66-175)	230(156-265)	180	8.5	39.5	15	20

3. FGC1-F630\6304\800



FGC1-F	a	P	Q	Q1	S	φ	f	b	b1	M	N	C	L	G	H	φ1	Z	Y	X1	
																			500V≤	>500V
6302	309	80	102	127	40	M12	201	304	280	264	202	255	155	180(100-195)	185	10.5	60.5	68.5	20	25
630	309	80	60	89	40	M12	201	304	280	264	202	255	155	180(100-195)	185	10.5	60.5	68.5	20	25
6304	309	80	60	89	40	M12	201	304	280	264	202	255	155	240(150-275)	185	10.5	60.5	68.5	20	25
800	309	80	60	89	40	M12	201	304	280	264	202	255	155	180(100-195)	185	10.5	60.5	68.5	20	25