

grup ARGE

Capacitor User Manual



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CONTENTS

PROPER USE AND SAFETY REGULATIONS.....	3
1.General features	4
2.Technical features	4
2.1 Single Phase Capacitors (230 V).....	5
2.2 Three Phase Capacitors (400 / 440 V)	6
2.3 Three Phase Capacitors (525 V).....	6
3. CONNECTION DIAGRAMS	7
3.1 Single Phase Capacitors Connection Diagram.....	7
3.2 Three Phase Capacitors connection Diagram	8
4.PRODUCT DIMENSIONS.....	9
4.1 Product Dimensions of Single Phase Capacitors	9
4.2 Product Dimensions of Three-Phase Capacitors	10

PROPER USE AND SAFETY REGULATIONS



Cut all the power when connecting and disconnecting the device to a panel.



Do not clean the device with a solvent or similar material. Only use a dry cloth.



Please do not intervene to the device when a technical problem is encountered and get in contact with a technical service within the shortest time.



If the warnings are not taken into account, our company or the authorized dealer shall not be held responsible for the negative consequences.



Do not dispose in the trash, the device must be delivered to the collection centers (electronic device recycling centers). It should be recycled or disposed of without harming human health and environment.



The installation, assembly, activation and operation of the device should be done and used by only expert professionals and in accordance with safety regulations and instructions.



The device operates with current transformers. Do not strictly leave current transformer tips unattached. Dangerous high voltage can occur.

1.General features

Electric motors, transformer etc. Power capacitors are used to meet the reactive power requirement in enterprises with inductive character where devices are located. Reactive power control relays meet the reactive needs of the enterprise by switching capacitors on and off by means of contactors or semiconductor switching elements and ensure that the reactive ratios remain below the desired ratios.

2.Technical features

Standards	IEC 60831-1 , IEC 60831-2
Rated Voltages (V)	230, 400, 440, 525
Maximum Voltage	UN + %10, (8 hours/24 hours)
Maximum Current	1,5 x In
Capacity Tolerance	%-5 / %+10
Internal Connection	Triangle
Terminal Test Voltage	2,15 x Un, AC 2S
Case Terminal Test	3 kV, AC 10S
Darbe (Inrush) Current	Maximum 200x In
Dielectric Losses	<0,2 W / kVAr
Total Losses	<0,4 W / kVAr
Case Type	Cylindrical aluminum type
Outer Body Protection Class	IP20. IP54 for external use
Ambient Temperature	-40°C/ +55°C
Relative humidity	<%95
usage time	>130000 D at temperature level >150000 C at temperature level
Discharge Resistance	It goes below 50 V in 1 minute
Cooling	Natural air cooled. Case temperature
Altitude	it can work at an altitude of 2000 meters above sea level.
Capacitor Protection	hypersensitive to pressure, It has 3 phase circuit separator.
Assembly Position	Vertical

Insulation System	It comprise of dry type, metallized polypropylene (MKP) film. It has self-healing featured.
Cooling	Naturally air cooled. Case temperature should be no more than 60°C at the top of the case.
suckling of the Capacitor	It does not contain PCB and has resin protection feature.
Installation and Grounding	Somun ve yaylı pulla, kasanın alt kısmından vida dişi açılmış M 12 x 16 mm cıvata vasıtasıyla yapılmalıdır.
Terminals	When double and triple way with M5 type screw . at low power it is cabled.

2.1 Single Phase Capacitors (230 V)

Product Code	product Name	Current(A) (230 V için)	Power (kVAr)		Dimensions (mm) (Width x Length)
			230 V	400 V	
GA7101	KND M0.25	1.08	0.25	0.75	50 x 90
GA7102	KND M0.5	2.17	0.50	1.50	50 x 100
GA7103	KND M1.0	4.34	1.00	3.00	65 x 100
GA7104	KND M1.5	6.52	1.50	4.50	65 x 130
GA7105	KND M2.5	10.86	2.50	7.50	75 x 195
GA7106	KND M5.0	21.73	5.00	15.00	90 x 205
GA7107	KND M7.5	32.06	7.50	22.50	100 x 245
GA7108	KND M10.0	43.47	10.00	30.00	117 x 245

2.2 Three Phase Capacitors (400 / 440 V)

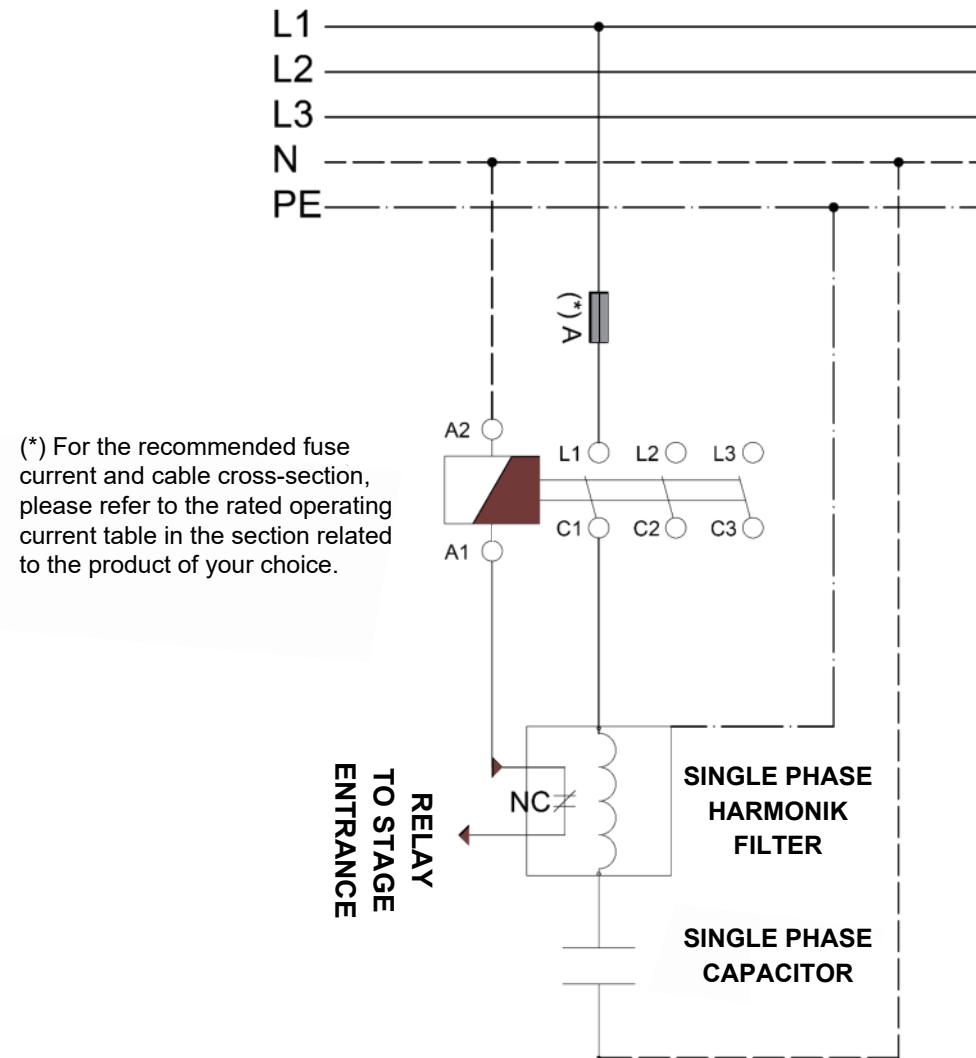
Product Code	Product Name	Current (A) (230 V için)	Power (kVAr)		Dimensions (mm) (Width x Length)
			400 V	440 V	
GA7201	KND T0.5	0.72	0.5	0.61	50 x 125
GA7202	KND T1.0	1.44	1.0	1.21	50 x 125
GA7203	KND T1.5	2.16	1.5	1.82	50 x 125
GA7204	KND T2.5	3.60	2.5	3.03	50 x 150
GA7205	KND T5.0	7.21	5.0	6.05	75 x 140
GA7206	KND T7.5	10.82	7.5	9.08	75 x 195
GA7207	KND T10.0	14.43	10.0	12.10	90 x 205
GA7208	KND T12.5	18.04	12.5	15.12	90 x 205
GA7209	KND T15.0	21.65	15.0	18.15	90 x 245
GA7210	KND T18.6	26.87	18.6	22.50	100 x 245
GA7211	KND T20.0	28.86	20.0	24.20	100 x 245
GA7212	KND T23.2	33.50	23.2	28.10	117 x 245
GA7213	KND T25.0	36.08	25.0	30.25	117 x 245
GA7214	KND T30.0	43.30	30.0	36.30	117 x 245

2.3 Three Phase Capacitors (525 V)

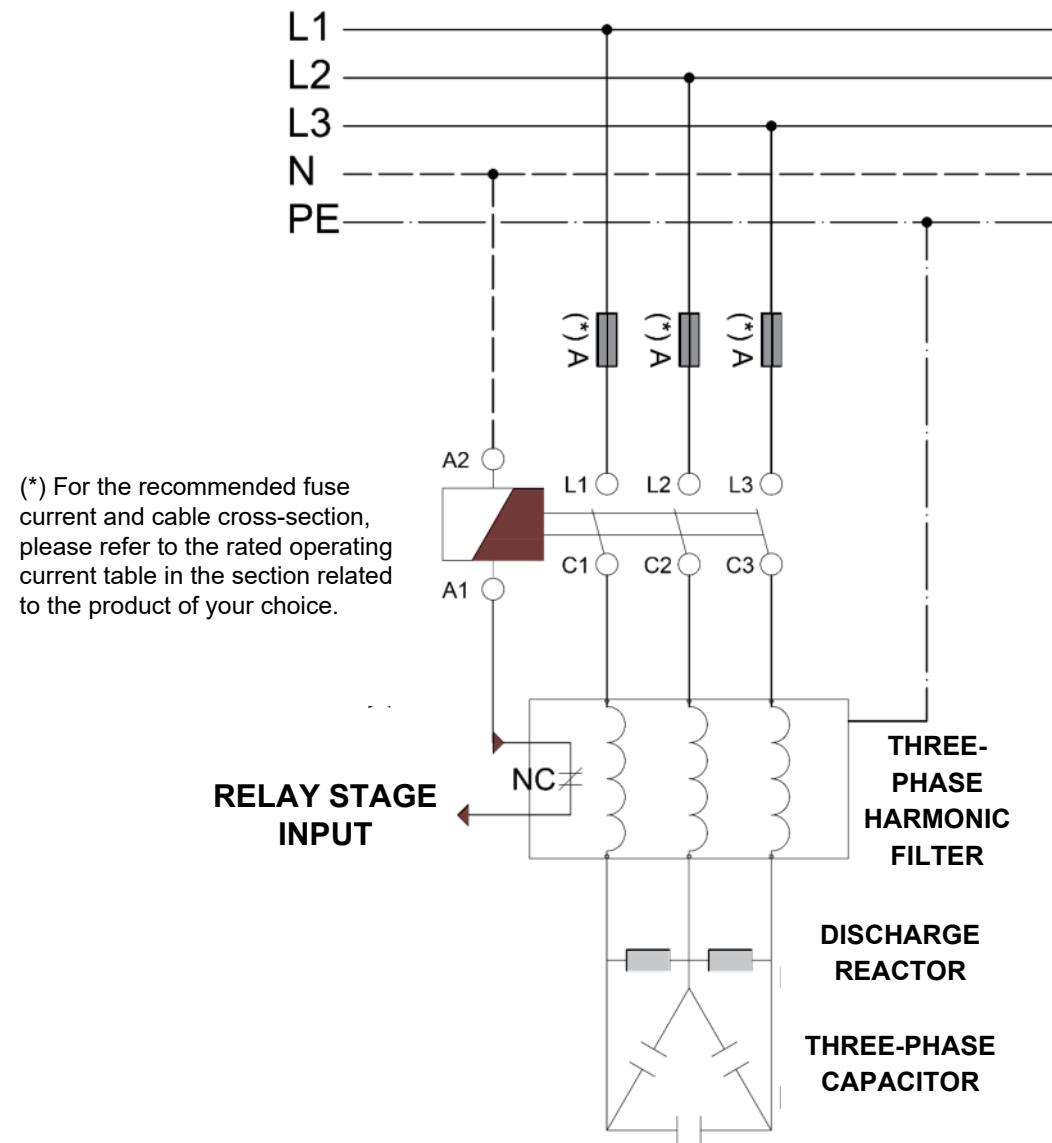
Product Code	product Name	Current (A)		Power (kVAr)		Dimensions (mm) (Width x Length)
		400 V	525 V	400 V	525 V	
GA7301	KND B5.0	4.19	5.50	2.9	5.0	75 x 140
GA7302	KND B7.5	6.28	8.25	4.4	7.5	75 x 195
GA7303	KND B10.0	8.38	11.00	5.8	10.0	85 x 205
GA7304	KND B12.5	10.47	13.75	7.3	12.5	90 x 205
GA7305	KND B15.0	12.57	16.50	8.7	15.0	90 x 245
GA7306	KND B20.0	16.76	21.99	11.6	20.0	100 x 245
GA7307	KND B25.0	20.95	27.49	14.5	25.0	117 x 245
GA7308	KND B30.0	25.14	32.99	17.4	30.0	117 x 245

3.CONNECTION DIAGRAMS

3.1 Single Phase Capacitors Connection Diagram

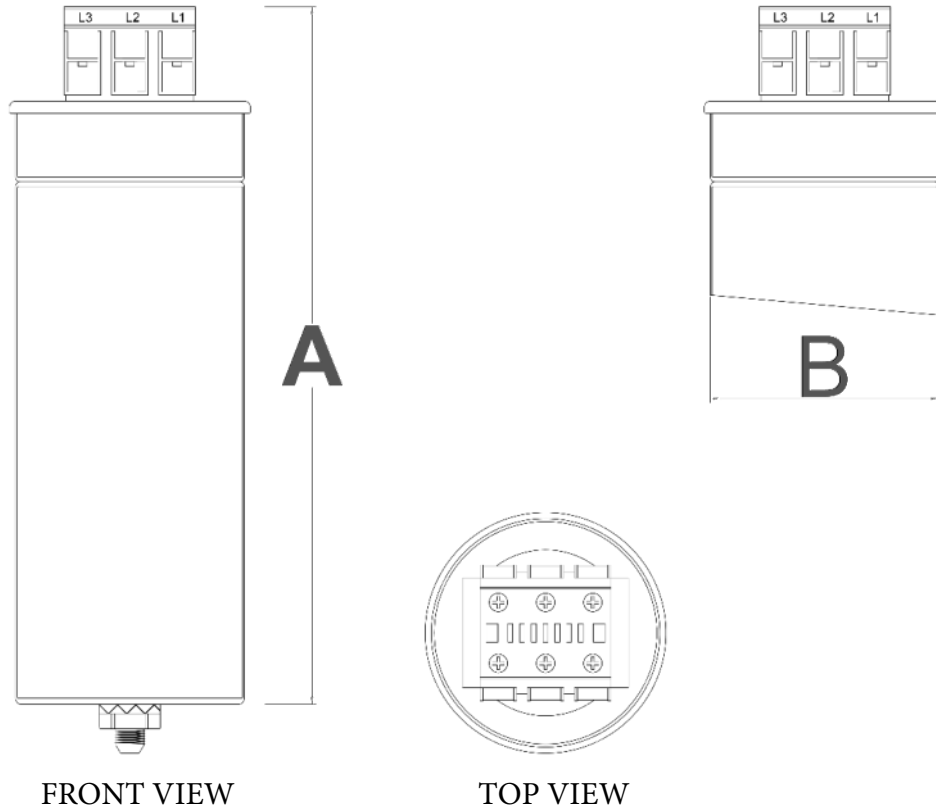


3.2 Three Phase Capacitors connection Diagram



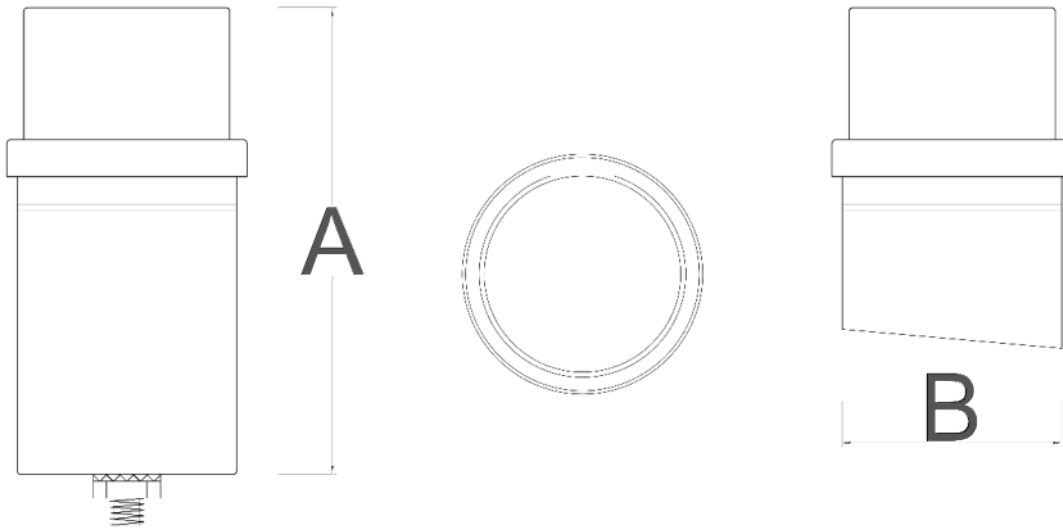
4. PRODUCT DIMENSIONS

4.1 Product Dimensions of Single Phase Capacitors



Dimensions (mm)				
Single Phase	Product Code	Product Name	A	B
	GA7101	KND M0.25	50	90
	GA7102	KND M0.5	50	100
	GA7103	KND M1.0	65	100
	GA7104	KND M1.5	65	130
	GA7105	KND M2.5	75	195
	GA7106	KND M5.0	90	205
	GA7107	KND M7.5	100	245
	GA7108	KND M10.0	117	245

4.2 Product Dimensions of Three-Phase Capacitors



FRONT VIEW

TOP VIEW

Dimensions (mm)			
Product Code	Product Name	A	B
Three-Phase (400V 440V)	GA7201 KND T0.5	50	125
	GA7202 KND T1.0	50	125
	GA7203 KND T1.5	50	125
	GA7204 KND T2.5	50	150
	GA7205 KND T5.0	75	140
	GA7206 KND T7.5	75	195
	GA7207 KND T10.0	90	205
	GA7208 KND T12.5	90	205
	GA7209 KND T15.0	90	245
	GA7210 KND T18.6	100	245
	GA7211 KND T20.0	100	245
	GA7212 KND T23.2	117	245
	GA7213 KND T25.0	117	245
	GA7214 KND T30.0	117	245

Product Code	Product Name	A	B
Three-Phase (525V)	GA7301 KND B5.0	75	140
	GA7302 KND B7.5	75	195
	GA7303 KND B10.0	85	205
	GA7304 KND B12.5	90	205
	GA7305 KND B15.0	90	245
	GA7306 KND B20.0	100	245
	GA7307 KND B25.0	117	245
	GA7308 KND B30.0	117	245