MICROIDEA®

PRODUCT CATALOGUE

2018



COMPANY PRESENTATION

+39.035.773 933 - microidea@microidea.it - www.microidea.it



Microidea srl is located in Albino - BG - has a 30 years experience in assembling, study and development of industrial automation products and custom projects.

We develop and prototype on demand every kind of servo-hardware/sw controls like inverters for renewable energy, domestic care, medical, communications, rail transport applications and automotive.
We also have our own line of power supply, battery chargers, timers and relay, power factor control and genset for every industrial applications.

We are at your disposal for every production and assembly need, (production area actually sizes 5000 square meters) and study and development for every new project.

DPFC 1PH 1 STEP Power Factor Controllers

- SUPPLY VOLTAGE DEVICE FROM 230V~ - 50/60Hz
  - SINGLE-PHASE: 230 V~ - 1PH MODE (L+N)
  - THREE-PHASE: 3 x 400 V~ - 1PH MODE (L1 or L2 or L3+N)
  - THREE-PHASE: 3 x 230 V~ - 3PH MODE (L1+L2)
  - For other supply voltages, please contact our sales department
- MONITORING:
  - COSφ INDUCTIVE & CAPACITIVE
  - NEUTRAL TO PHASE VOLTAGE & CURRENT
  - SENSITIVITY
  - ALARMS
- MANUAL OR AUTOMATIC OPERATION
- SENSITIVITY ADJUSTABLE
- COMPACT SIZE - 2 MODULE - 35mm
- DIN RAIL MOUNTING EN50.022
- SELF-EXTINGUISHED MATERIAL UL94 V0



RoHS 2 COMPLIANT

CE

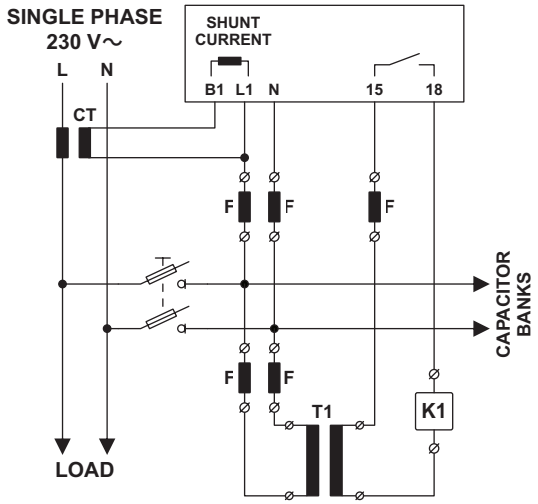
EU Directives - CE Marking:

> 2014/30/UE - EMC
> 2014/35/UE - LVD

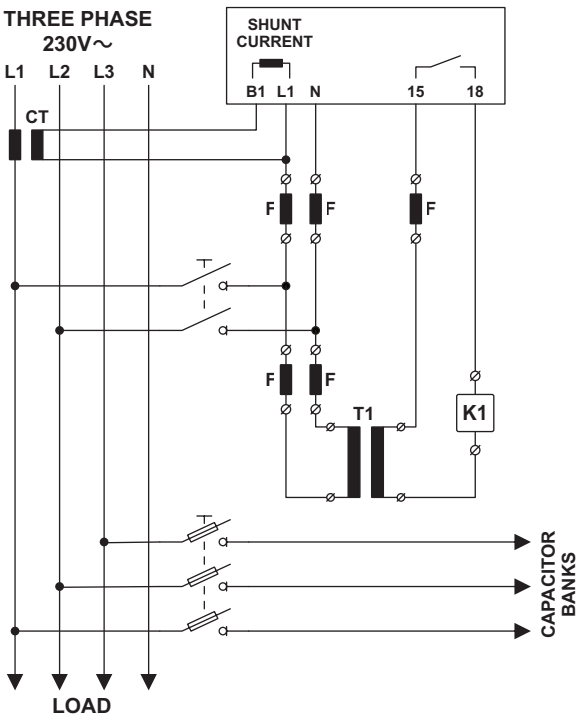
TECHNICAL DATA

	UNIT	DPFC01D
Supply voltage AC	V~	230
Operating Limits (Ue)	%	-15 / +10
Nominal Frequency	Hz	50 - 60 (range 47 - 63)
Power Consumption (max. AC)	VA	3.0
Immunity Time For Microbreakings	ms	< 6
Display Type	-	4 x LED Red
Rated Current	A	5
Voltage Reading Limits (N/Lx)	V~	196 - 253
Current Reading Limits	A	0.125 - 5.5
Measuring Values	-	RMS
Power Factor Correction	-	0.91 Ind - 0.96 Cap
Number of Output	Relay	1
Contact Capacity	-	5A - 250V~ (AC1)
Working temperature	°C	-10 / +50
Storage temperature	°C	-30 / +70
Electrical Insulation	kV	4
Overvoltage Category	-	II
Protection degree	IP	20
Pollution degree	-	2
Relative Humidity w/o cond.	RH%	90
Altitude up to	m	2000
Weight	g	140
Dimensions	mm	98 x 36 x 64

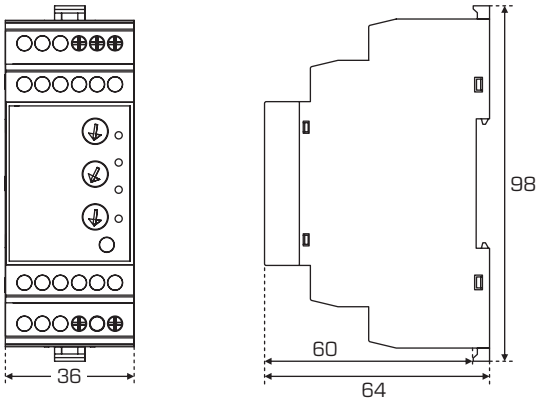
WIRING DIAGRAM - 1PH 230V~



WIRING DIAGRAM - 3PH 230V~



DIMENSIONS (mm)



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DPFC 1PH 4-6 STEPS Power Factor Controllers

- ▶ MEASUREMENTS: - COSφ INDUCTIVE & CAPACITIVE
  - PHASE TO PHASE VOLTAGE & CURRENT
  - REACTIVE POWER NEEDED
  - COSφ DESIRED
  - TOTAL HARMONIC DISTORSION
  - SENSITIVITY
  - AMBIENT TEMPERATURE
- ▶ AUTORECOGNIZED CAPACITOR BANK
- ▶ ANTI-HUNTING FUNCTION
- ▶ FIXED STEP PROGRAMMABLE
- ▶ RELAY PROGRAMMABLE FOR ALARM OR FAN
- ▶ RJ11 - TTL STANDARD - SERIAL INTERFACE
- ▶ SELF-EXTINGUISHED MATERIAL UL94 V0
- ▶ AVAILABLE ON REQUEST: - DIN RAIL VERSION
  - SUPPLY 110V~
  - CT 1A



RoHS 2 COMPLIANT

CE

EU Directives - CE Marking:

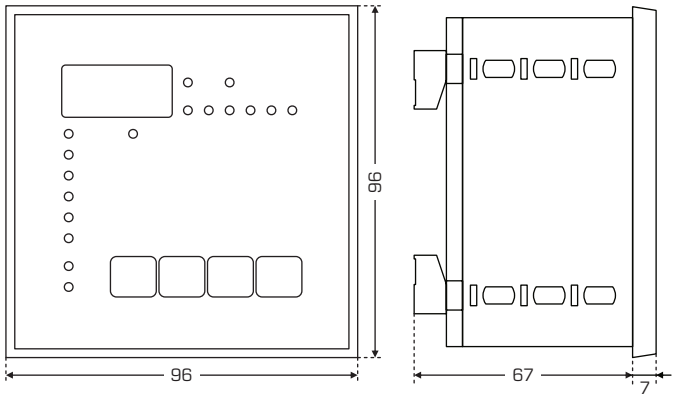
> 2014/30/UE - EMC
> 2014/35/UE - LVD

TECHNICAL DATA

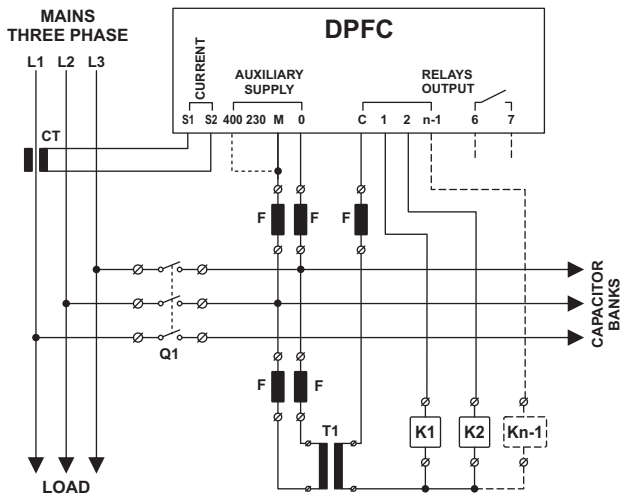
	UNIT	DPFC04A	DPFC06A
Supply voltage AC	V~	230 - 400 (range 220 - 440)	
Operating Limits (Ue)	%	-15 / +10	
Nominal Frequency	Hz	50 - 60 (range 47 - 63)	
Power Consumption (max. AC)	VA	5.8	
Immunity Time For Microbreakings	ms	< 6	
Display Type	-	1 Display - 3 Digit - 7 Segment	
Rated Current (CT)	A	5	
Voltage Reading Limits (L/Lx)	V~	180 - 485	
Current Reading Limits (CT)	A	0.125 - 5.5	
Measuring Values	-	True RMS	
Power Factor Correction	-	0.85 Inductive - 0.95 Capacitive	
FFT - Harmonic Spectrum	THD %	64 st	
Number of Output	Relay	4	6
Serial Interface	-	TTL - standard	
Communication Protocol	-	Owner - Modbus RTU	
Connector Type	-	RJ11	
Working temperature	°C	-10 / +50	
Storage temperature	°C	-30 / +70	
Electrical Insulation	kV	4	
Overvoltage Category	-	II	
Protection degree	IP	41 Front Cover - 20 Terminal Block Connections	
Pollution degree	-	2	
Relative Humidity w/o cond.	RH%	90	
Altitude up to	m	2000	
Weight	g	350	370
Dimensions	mm	96 x 96 x 74	

OPTIONAL

DIMENSIONS (mm)



WIRING DIAGRAM



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DPFC 1PH 4-6-8-12 STEPS Power Factor Controllers

- ▶ MEASUREMENTS: - COSφ INDUCTIVE & CAPACITIVE
  - PHASE TO PHASE VOLTAGE & CURRENT
  - REACTIVE POWER NEEDED
  - COSφ DESIRED
  - TOTAL HARMONIC DISTORSION
  - SENSITIVITY
  - AMBIENT TEMPERATURE
- ▶ AUTORECOGNIZED CAPACITOR BANK
- ▶ ANTI-HUNTING FUNCTION
- ▶ FIXED STEP PROGRAMMABLE
- ▶ RELAY PROGRAMMABLE FOR ALARM OR FAN
- ▶ RJ11 - TTL STANDARD - SERIAL INTERFACE
- ▶ SELF-EXTINGUISHED MATERIAL UL94 V0
- ▶ AVAILABLE ON REQUEST: - SUPPLY 110V~
  - CT 1A



RoHS 2 COMPLIANT

CE

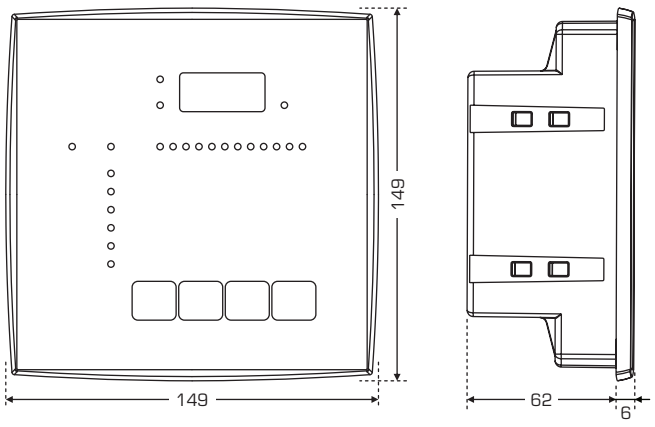
EU Directives - CE Marking:

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> 2014/35/UE - LVD

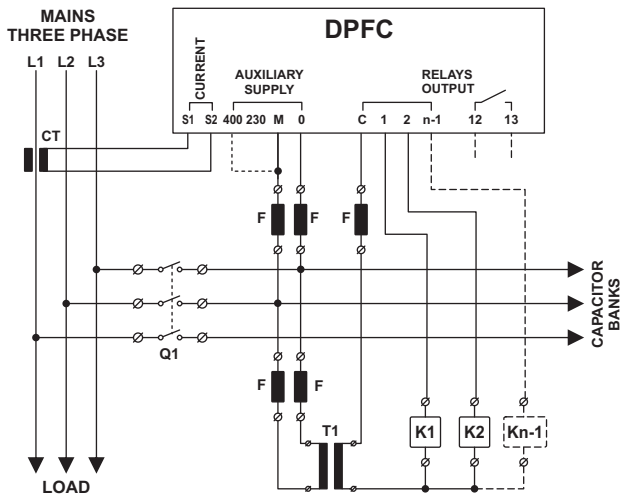
TECHNICAL DATA

	UNIT	DPFC04B	DPFC06B	DPFC08B	DPFC12B
Supply voltage AC	V~	230 - 400 (range 220 - 440)			
Operating Limits (Ue)	%	-15 / +10			
Nominal Frequency	Hz	50 - 60 (range 47 - 63)			
Power Consumption (max. AC)	VA	6.1			
Immunity Time For Microbreakings	ms	< 6			
Display Type	-	1 Display - 3 Digit - 7 Segment			
Rated Current (CT)	A	5			
Voltage Reading Limits (Lx/Lx)	V~	195 - 460			
Current Reading Limits (CT)	A	0.125 - 5.5			
Measuring Values	-	True RMS			
Power Factor Correction	-	0.85 Inductive - 0.95 Capacitive			
FFT - Harmonic Spectrum	THD %	64 st			
Number of Output	Relay	4	6	8	12
Serial Interface	-	TTL - standard			
Communication Protocol	-	Owner - Modbus RTU			
Connector Type	-	RJ11			
Working temperature	°C	-10 / +50			
Storage temperature	°C	-30 / +70			
Electrical Insulation	kV	4			
Overvoltage Category	-	II			
Protection degree	IP	41 Front Cover - 20 Terminal Block Connections			
Pollution degree	-	2			
Relative Humidity w/o cond.	RH%	90			
Altitude up to	m	2000			
Weight	g	520	540	650	700
Dimensions	mm	149 x 149 x 68			

DIMENSIONS (mm)



WIRING DIAGRAM



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DPFC 3PH 6-12 STEPS Power Factor Controllers

- ▶ MEASUREMENTS: - COSφ INDUCTIVE & CAPACITIVE
  - THREE PHASE VOLTAGE & CURRENT
  - POWER: W - VAr - VA (Real - Reactive - Apparent)
  - TOTAL HARMONIC DISTORSION V - I
  - WORK HOURS
  - AMBIENT TEMPERATURE
  - ALARMS
- ▶ AUTORECOGNIZED CAPACITOR BANK
- ▶ ANTI-HUNTING FUNCTION
- ▶ FIXED STEP PROGRAMMABLE
- ▶ RELAY PROGRAMMABLE FOR ALARM OR FAN
- ▶ RJ11 - TTL STANDARD - SERIAL INTERFACE
- ▶ SELF-EXTINGUISHED MATERIAL UL94 V0



RoHS 2 COMPLIANT

CE

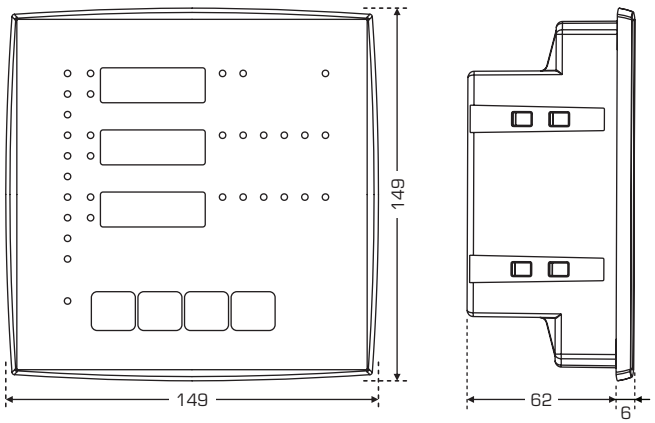
EU Directives - CE Marking:

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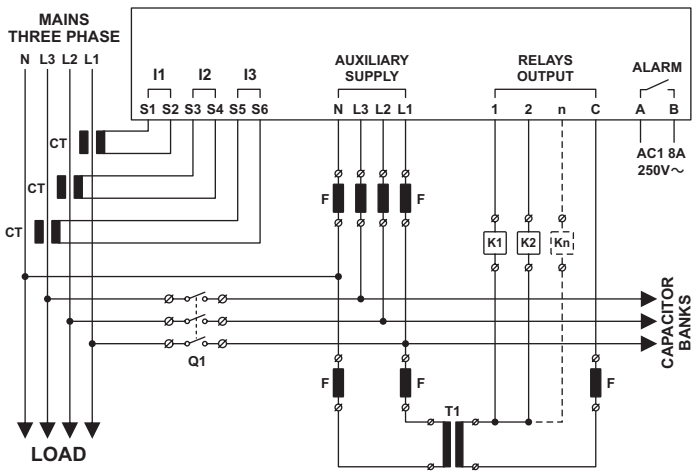
TECHNICAL DATA

	UNIT	DPFC06B3	DPFC12B3
Supply voltage AC	V~	3 x 400 +N	
Operating Limits (Ue)	%	-15 /+10	
Nominal Frequency	Hz	50 - 60 (range 47 - 63)	
Power Consumption (max. AC)	VA	12	
Immunity Time For Microbreakings	ms	< 6	
Display Type	-	3 Display - 4 Digit - 7 Segment	
Rated Current (CT)	A	5	
Voltage Reading Limits (N/Lx)	V~	110 - 265	
Current Reading Limits (CT)	A	0.125 - 5.5	
Measuring Values	-	True RMS	
Power Factor Correction	-	0.85 Inductive - 0.95 Capacitive	
FFT - Harmonic Spectrum	THD %	64 st	
Number of Output	Relay	6	12
Serial Interface	-	TTL - standard	
Communication Protocol	-	Owner - Modbus RTU	
Connector Type	-	RJ11	
Working temperature	°C	-10 /+50	
Storage temperature	°C	-30 /+70	
Electrical Insulation	kV	4	
Overvoltage Category	-	II	
Protection degree	IP	41 Front Cover - 20 Terminal Block Connections	
Pollution degree	-	2	
Relative Humidity w/o cond.	RH%	90	
Altitude up to	m	2000	
Weight	g	720	770
Dimensions	mm	149 x 149 x 68	

DIMENSIONS (mm)



WIRING DIAGRAM



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