




Monitoring relays

Current relays

Types	DIA 01 PIA 01	DIA 53	DIB 01 PIB 01
			
Dimensions HxWxD (mm) DIN RAIL housing Plug-in housing	80 x 22.5 x 99.5 [D] 80 x 36 x 94 [P]	81 x 17.5 x 67.2 [Mini-D]	80 x 22.5 x 99.5 [D] 80 x 36 x 94 [P]
Function	Over current monitoring relay. 1-phase AC / DC. Direct input or on CT 5A. Setpoint adjustable. Hysteresis adjustable	Over current monitoring relay. 1-phase AC. Setpoint adjustable. 2-wire connection. Reaction time < 50 ms for F versions. 12 mm hole for insulated current carrying wire	Over or under current monitoring relay. 1-phase AC / DC TRMS. Direct input or on CT 10A. Setpoint adjustable. Hysteresis adjustable. Delay time adjustable. 12 mm hole for insulated current carrying wire [100 A]

Input specifications

Measuring range	0.5-5 A AC/DC	2-20 AAC [20A] 5-50 AAC [50A] 10-100 AAC [100A]	0.1-5 mA AC / DC [5MA] 1-50 mA AC / DC [50MA] 10-500 mA AC / DC [500MA] 0.1-5 A AC / DC [5A] 1-10 A AC / DC [10A] 2-100 A AC [100A]
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Output specifications

	1 x SPDT relay	Static output	1 x SPDT relay
Max. load AC1	8 A / 250 VAC		8 A / 250 VAC
Max. load DC12	5 A / 24 VDC	100 mA	5 A / 24 VDC
Electrical life	>1 x 10 ⁵ operations		>1 x 10 ⁵ operations

General specifications

Power supply	24-48 V AC / DC [D48] 115 / 230 VAC [B23]	40 VDC max. Powered by the measured current	24-48 V AC / DC [D48] 115 / 230 VAC [B23] 24 VDC / 24-240 VAC [M24]
Approvals / Marks	CE - UL - CSA	CE - UL - CSA	CE - UL - CSA




References

DIA01C D48 5A	DIA53S 724 20A	DIB01C ... 5MA
PIA01C D48 5A	DIA53S 724 50A	DIB01C ... 50MA
DIA01C B23 5A	DIA53S 724 100A	DIB01C ... 500MA
PIA01C B23 5A	DIA53S 724 20A F	DIB01C ... 5A
	DIA53S 724 50A F	DIB01C ... 10A
	DIA53S 724 100A F	DIB01C M24 100A
		PIB01C ... 5MA
		PIB01C ... 50MA
		PIB01C ... 500MA
		PIB01C ... 5A
		PIB01C ... 10A

... = insert code for Power Supply

Monitoring relays

Current relays

Types	DIB 71	DIB 02 PIB 02	DIC 01 PIC 01
			
Dimensions HxWxD (mm)	81 x 35.5 x 67.2 [Mini-D]	80 x 22.5 x 99.5 [D] 80 x 36 x 94 [P]	80 x 45 x 99.5 [D] 80 x 36 x 94 [P]
DIN RAIL housing			
Plug-in housing			

Function	Over or under current monitoring relay. 1-phase AC / DC TRMS. Direct input or on CT 5A. Setpoint adjustable. Hysteresis adjustable. Delay time adjustable	Over or under current monitoring relay. 1-phase AC / DC TRMS. Input on shunt or CT MI / MP. Setpoint adjustable. Hysteresis adjustable. Delay time adjustable	Process signal monitoring relay. 1-phase AC / DC TRMS. Direct input, CT A82 or CT MI / MP. 2 setpoints separately adjustable. Hysteresis adjustable. 2 delay functions separately adjustable
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Input specifications

Measuring range	0.1-5 mA AC / DC [5MA] 1-50 mA AC / DC [50MA] 10-500 mA AC / DC [500 MA] 0.1-5 A AC / DC [5A]	6-150 mV AC / DC 0.4 - 4Vp	0.5-20 mA AC / DC 0.1-10 V AC / DC 0.4 - 4Vp
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Output specifications

	1 x SPDT relay	1 x SPDT relay	1 x SPDT relay [P] 2 x SPDT relays [D]
Max. load AC1	5 A / 250 VAC	8 A / 250 VAC	5 A / 250 VAC
Max. load DC12	5 A / 24 VDC	5 A / 24 VDC	5 A / 24 VDC
Electrical life	>1 x 10 ⁵ operations	>1 x 10 ⁵ operations	>1 x 10 ⁵ operations

General specifications





Power supply	24 / 48 VAC [B48] 115 / 230 VAC [B23]	24-48 V AC / DC [D48] 115 / 230 VAC [B23]	24-48 V AC / DC [D48] 115 / 230 VAC [B23]
Approvals / Marks	CE - UL - CSA	CE - UL - CSA	CE - UL - CSA

References





DIB71C B48 5MA	DIB02C D48 150MV	DIC01D D48 AV0
DIB71C B48 50MA	PIB02C D48 150MV	PIC01C D48 AV0
DIB71C B48 500MA	DIB02C B23 150MV	DIC01D B23 AV0
DIB71C B48 5A	PIB02C B23 150MV	PIC01C B23 AV0
DIB71C B23 5MA		
DIB71C B23 50MA		
DIB71C B23 500MA		
DIB71C B23 5A		

Monitoring relays

Voltage relays





Types	DUA 01 PUA 01	DUA 52	DUA 55	DUB 01 PUB 01
				
Dimensions HxWxD (mm) DIN RAIL housing Plug-in housing	80 x 22.5 x 99.5 [D] 80 x 36 x 94 [P]	81 x 17.5 x 67.2 [Mini-D]	81 x 17.5 x 67.2 [Mini-D]	80 x 22.5 x 99.5 [D] 80 x 36 x 94 [P]
Function	Over current and voltage monitoring relay. 1-phase AC / DC. Setpoint adjustable. Hysteresis adjustable	Under voltage monitoring relay for DC battery. Setpoint adjustable. Hysteresis adjustable. Measures its own power supply	Over and under voltage monitoring relay. 1-phase (measures its own power supply) AC TRMS	Over or under voltage monitoring relay. 1-phase AC / DC TRMS. Setpoint adjustable. Hysteresis adjustable. Delay time adjustable.
Input specifications				
Measuring range	2-500 V AC / DC 0.4 - 4 Vp	8-28 VDC [724] 38-58 VDC [748]	208 / 220 / 230 / 240 VAC	0.1-10 V AC / DC [10V] 2-500 V AC / DC [500V]
Output specifications				
	1 x SPDT relay	1 x SPDT relay	1 x SPDT relay	1 x SPDT relay
Max. load AC1	8 A / 250 VAC	5 A / 250 VAC	5 A / 250 VAC	8 A / 250 VAC
Max. load DC12	5 A / 24 VDC	5 A / 24 VDC	5 A / 24 VDC	5 A / 24 VDC
Electrical life	>1 x 10 ⁵ operations	>1 x 10 ⁵ operations	>1 x 10 ⁵ operations	>1 x 10 ⁵ operations
General specifications				
Power supply	24-48 V AC / DC [D48] 115 / 230 VAC [B23]	8-28 VDC [724] 38-58 VDC [748]	208-480 VAC	24-48 V AC / DC [D48] 115 / 230 VAC [B23]
Approvals / Marks	CE - UL - CSA	CE - UL - CSA	CE - UL - CSA	CE - UL - CSA
References				
	DUA01C D48 500V	DUA52 C724	DUA55 CM44	DUB01C D48 10V
	PUA01C D48 500V	DUA52 C748		DUB01C D48 500V
	DUA01C B23 500V			PUB01C D48 10V
	PUA01C B23 500V			PUB01C D48 500V
				DUB01C B23 10V
				DUB01C B23 500V
				PUB01C B23 10V
				PUB01C B23 500V

Monitoring relays

Voltage relays				
Types	DUB 71	DUB 02 PUB 02	DUB 03 PUB 03	DUC 01 PUC 01
				
Dimensions HxWxD (mm)	81 x 35.5 x 67.2 [Mini-D]	80 x 22.5 x 99.5 [D] 80 x 36 x 94 [P]	80 x 22.5 x 99.5 [D] 80 x 36 x 94 [P]	80 x 45 x 99.5 [D] 80 x 36 x 94 [P]
DIN RAIL housing				
Plug-in housing				
Function	Over or under voltage monitoring relay. 1-phase AC/DC TRMS. Setpoint adjustable. Hysteresis adjustable. Delay time adjustable	Over and under voltage monitoring relay. 1-phase (measures its own power supply) AC TRMS. Over and under voltage setpoints separately adjustable. Hysteresis adjustable. Delay time adjustable (ON/OFF)	Over or under voltage monitoring relay. 1-phase (measures its own power supply) AC/DC TRMS. Setpoint adjustable. Hysteresis adjustable. Delay time adjustable	Over and under voltage monitoring relay. 1-phase AC/DC TRMS. 2 setpoints separately adjustable. Hysteresis adjustable. 2 delay functions separately adjustable
Input specifications				
Measuring range	0.1-10 V AC/DC [10V] 2-500 V AC/DC [500V]	24/115/230 VAC	24/48/115/240 V AC/DC	2-500 V AC/DC [500V]
Output specifications				
	1 x SPDT relay	1 x SPDT relay	1 x SPDT relay [P]	1 x SPDT relay [C] 2 x DPDT relay [D]
Max. load AC1	5 A / 250 VAC	8 A / 250 VAC	8 A / 250 VAC	8 A / 250 VAC
Max. load DC12	5 A / 24 VDC	5 A / 24 VDC	5 A / 24 VDC	5 A / 24 VDC
Electrical life	>1 x 10 ⁵ operations	>1 x 10 ⁵ operations	>1 x 10 ⁵ operations	>1 x 10 ⁵ operations
General specifications				
Power supply	24/48 VAC [B48] 115 / 230 VAC [B23]	24/115/230 VAC	12-240 V AC/DC	24-48 V AC/DC [D48] 115 / 230 VAC [B23]
Approvals / Marks	CE - UL - CSA	CE - UL - CSA	CE - UL - CSA	CE - UL - CSA
References				
	DUB71C B48 10V	DUB02C T23	DUB03C W24	DUC01D D48 500V
	DUB71C B48 500V	PUB02C T23	PUB03C W24	PUC01C D48 500V
	DUB71C B23 10V			DUC01D B23 500V
	DUB71C B23 500V			PUC01C B23 500V

Monitoring relays

3-phase voltage relays

Types	DPA 01 PPA 01	DPA 51 DPA 71	DPA 03 PPA 03	DPA 53
				
Dimensions HxWxD (mm) DIN RAIL housing	80 x 22.5 x 99.5 [D]	81 x 17.5 x 67.2 [Mini-D] 81 x 35.5 x 67.2 [Mini-D]	80 x 22.5 x 99.5 [D]	81 x 17.5 x 67.2 [Mini-D]
Plug-in housing	80 x 36 x 94 [P]		80 x 36 x 94 [P]	
Function	Phase sequence, total and partial phase loss monitoring relay. 3-phase AC (measures its own power supply). Regenerated voltage	Phase sequence, total and partial phase loss monitoring relay. 3-phase AC (measures its own power supply). Regenerated voltage	Under voltage, phase sequence, total and partial phase loss monitoring relay. 3-phase (measures its own power supply) AC TRMS	Under voltage, phase sequence, total and partial phase loss monitoring relay. 3-phase (measures its own power supply) AC TRMS

Input specifications

Measuring range	208-240 VAC [M23] 208-415 VAC [P] [M44] 208-480 VAC [D] [M44] 380-415 VAC [P] [M48] 380-480 VAC [D] [M48] 380-600 VAC [M60] 380-690 VAC [M69]	208-240 VAC [M23] 208-480 VAC [M44] 380-480 VAC [M48]	208-240 VAC [M23] 380-415 VAC [P] [M48] 380-480 VAC [D] [M48] 600-690 VAC [M69]	208-240 VAC [M23] 380-480 VAC [M48]
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Output specifications

	1 x SPDT relay [C] 1 x DPDT relay [D]	1 x SPDT relay [C] 1 x DPDT relay [D]	1 x SPDT relay	1 x SPDT relay
Max. load AC1	8 A / 250 VAC	5 A / 250 VAC	8 A / 250 VAC	5 A / 250 VAC
Max. load DC12	5 A / 24 VDC	5 A / 24 VDC	5 A / 24 VDC	5 A / 24 VDC
Electrical life	>1 x 10 ⁵ operations	>1 x 10 ⁵ operations	>1 x 10 ⁵ operations	>1 x 10 ⁵ operations

General specifications




Power supply	208-240 VAC [M23] 208-415 VAC [P] [M44] 208-480 VAC [D] [M44] 380-415 VAC [P] [M48] 380-480 VAC [D] [M48] 380-600 VAC [M60] 380-690 VAC [M69]	208-240 VAC [M23] 208-480 VAC [M44] 380-480 VAC [M48]	208-240 VAC [M23] 380-415 VAC [P] [M48] 380-480 VAC [D] [M48] 600-690 VAC [M69]	208-240 VAC [M23] 380-480 VAC [M48]
Approvals / Marks	CE - UL - CSA	CE - UL - CSA	CE - UL - CSA	CE - UL - CSA

References

DPA01D M23	DPA51C M44	DPA03C M23	DPAS3C M23
PPA01D M23	DPA71D M23	PPA03C M23	DPAS3C M48
DPA01C M44	DPA71D M48	DPA03C M48	
PPA01C M44		PPA03C M48	
DPA01D M48		DPA03C M69	
PPA01D M48			
DPA01C M60			
DPA01C M69			

Monitoring relays

3-phase voltage relays

Types	DPA 55	DPB 01 PPB 01	DPB 51
			
Dimensions HxWxD (mm)	81 x 17.5 x 67.2 [Mini-D]	80 x 22.5 x 99.5 [D] 80 x 36 x 94 [P]	90 x 17.5 x 67.2 [Mini-D]
DIN RAIL housing			
Plug-in housing			
Function	Over and under voltage, phase sequence, total and partial phase loss monitoring relay. 3-phase (measures its own power supply) AC TRMS. Two tolerance voltage windows	Over and under voltage monitoring relay with phase loss and phase sequence. 3-phase +N (measures its own power supply) AC TRMS. N versions without phase sequence detection. W4 versions supplied between L and N. 2 setpoints separately adjustable. Delay time adjustable.	Over and under voltage monitoring relay with phase loss and phase sequence. 3-phase +N (measures its own power supply) AC TRMS. 2 setpoints separately adjustable. Delay time adjustable.

Input specifications

Measuring range	208-480 VAC	208-240 VAC [M23] 380-415 VAC [P] [M48] 380-480 VAC [D] [M48]	208-480 VAC
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Output specifications

	1 x SPDT relay	1 x SPDT relay	1 x SPDT relay
Max. load AC1	5 A / 250 VAC	8 A / 250 VAC	5 A / 250 VAC
Max. load DC12	5 A / 24 VDC	5 A / 24 VDC	5 A / 24 VDC
Electrical life	>1 x 10 ⁵ operations	>1 x 10 ⁵ operations	>1 x 10 ⁵ operations

General specifications




Power supply	208-480 VAC	208-240 VAC [M23] 380-415 VAC [P] [M48] 380-480 VAC [D] [M48] [W]	208-480 VAC
Approvals / Marks	CE - UL - CSA	CE - UL - CSA	CE - UL - CSA

References

	DPA55C M44	DPB01C M23	DPB51C M44
		PPB01C M23	
		DPB01C M23 N	
		PPB01C M23 N	
		DPB01C M48	
		PPB01C M48	
		DPB01C M48 W4	
		PPB01C M48 W4	
		DPB01C M48 N	
		PPB01C M48 N	
		DPB01C M48 N W4	
		PPB01C M48 N W4	

Monitoring relays

3-phase voltage relays

Types	DPB 71	DPB 02 PPB 02	DPC 01 PPC 01
			
Dimensions HxWxD (mm)	81 x 35.5 x 67.2 [Mini-D]	80 x 22.5 x 99.5 [D] 80 x 36 x 94 [P]	80 x 45 x 99.5 [D] 80 x 36 x 94 [P]
DIN RAIL housing			
Plug-in housing			
Function	Over and under voltage monitoring relay with phase loss and phase sequence. 3-phase +N (measures its own power supply) AC TRMS. 2 setpoints separately adjustable. Delay time adjustable.	Asymmetry monitoring relay with phase sequence / phase loss. 3-phase +N (measures its own power supply) AC TRMS. Adjustable asymmetry. Delay time adjustable.	Over and under voltage monitoring relay with phase loss / phase sequence, asymmetry and tolerance. 3-phase +N (measures its own power supply) AC TRMS. Setpoint separately adjustable by function.

Input specifications

Measuring range	208-240 VAC [M23] 380-480 VAC [M48]	208-240 VAC [M23] 380-415 VAC [P] [M48] 380-480 VAC [D] [M48]	208-240 VAC [M23] 380-415 VAC [P] [M48] 380-480 VAC [D] [M48] 600-690 VAC [M69] Frequency 50-60 Hz 100-115 VAC [M11 400Hz] 208-240 VAC [M23 400Hz] 380-415 VAC [M48 400Hz] 440-480 VAC [M49 400Hz] 600-690 VAC [M69 400Hz] Frequency 50-400 Hz
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Output specifications

Max. load AC1	1 x SPDT relay 5 A / 250 VAC	1 x SPDT relay 8 A / 250 VAC	2 x SPDT relay 8 A / 250 VAC
Max. load DC12	5 A / 24 VDC	5 A / 24 VDC	5 A / 24 VDC
Electrical life	>1 x 10 ⁵ operations	>1 x 10 ⁵ operations	>1 x 10 ⁵ operations




General specifications

Power supply	208-240 VAC [M23] 380-480 VAC [M48]	208-240 VAC [M23] 380-415 VAC [P] [M48] 380-480 VAC [D] [M48]	100-115 VAC [M11] 208-240 VAC [M23] 380-415 VAC [P] [M48] 380-480 VAC [D] [M48] 440-480 VAC [M49] 600-690 VAC [M69]
Approvals / Marks	CE - UL - CSA	CE - UL - CSA	CE - UL - CSA

References

	DPB71C M23	DPB02C M23	DPC01D M23
	DPB71C M48	PPB02C M23	PPC01D M23
		DPB02C M48	DPC01D M48
		PPB02C M48	PPC01D M48
			DPC01D M69
			DPC01D M11 400HZ
			DPC01D M23 400HZ
			DPC01D M48 400HZ
			DPC01D M49 400HZ
			DPC01D M69 400HZ

Monitoring relays

	3-phase multifunction voltage relays		Interface protection relays
Types	DPC 71 PPC 71	DPC 02	DPC 72
			
Dimensions (mm) HxWxD			
DIN RAIL housing	81 x 35.5 x 67.2 [D]	80 x 45 x 99.5 [D]	90 x 71.6 x 66.3 [D]
Plug-in housing	81.2 x 35.5 x 75 [P]		
Function	Over and under voltage monitoring relay with phase loss / phase sequence, asymmetry and tolerance. 3-phase +N (measures its own power supply) AC TRMS. Setpoints separately adjustable by function	Over and under voltage / over and under frequency with phase loss and phase sequence monitoring relay. 3-phase+N (measures its own power supply) AC TRMS. Setpoints separately adjustable. Separately adjustable delay times. Adjustable frequency range	Digital interface protection relay with over and under voltage / over and under frequency, phase loss and phase sequence controls. Frequency derivative monitoring [B001, B003], voltage quality [B002], RS485 port, event counter, datatimestamping and auto-test function. 3-phase (measures its own power supply) AC TRMS. Setpoints separately adjustable. Separately adjustable delay times. Programmable via PC (DpcSoft free configuration software)

Input specifications

Measuring range	208-240 VAC [M23] 380-415 VAC [P] [M48] 380-480 VAC [D] [M48]	Voltage: 208-240 VAC [M23] 380-415 VAC [M48] 440-480 VAC [M49] 600-690 VAC [M69] Frequency: 50/60 Hz	Voltage: 380-415 VAC [M48] Frequency: 45-65 Hz
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Output specifications

Max. load AC1	2 x SPDT relays 5 A / 250 VAC	2 x SPDT relays 8 A / 250 VAC	1 x DPDT relays 8 A / 250 VAC
Max. load DC12	5 A / 24 VDC	5 A / 24 VDC	5 A / 24 VDC
Electrical life	>1 x 10 ⁵ operations	>1 x 10 ⁵ operations	>1 x 10 ⁵ operations

General specifications

Power supply	208-240 VAC [M23] 380-415 VAC [P] [M48] 380-480 VAC [D] [M48]	208-240 VAC [M23] 380-415 VAC [M48] 440-480 VAC [M49] 600-690 VAC [M69]	308-415 VAC [M48]
Approvals / Marks	CE - UL - CSA	CE - UL - CSA - ENEL DK 5950 [B003]	CE - VDE 0126-1-1 [B002]

References

DPC71D M23	DPC02D M23	DPC72D M48 B001
PPC71D M23	DPC02D M48	DPC72D M48 B002
DPC71D M48	DPC02D M49	
PPC71D M48	DPC02D M69	
	DPC02D M23 B003	
	DPC02D M48 B003	

Monitoring relays

Interface protection relays

Types

PI96

PI-DIN



Dimensions HxWxD (mm)

96 x 96 x 85.9

90 x 71.6 x 66.3

Description

Single or three-phases systems monitoring relay interface protection with energy metering and logging of max-min and avg values for: V_{LL} , V_{LN} , VA, VAR, PF, kWh, THD

Single or three-phases systems monitoring relay interface protection

Measuring input

Voltage range

230 V_{LN} 400 V_{LL}

230 V_{LN} 400 V_{LL}

Frequency range

47.5 to 51.5 Hz

47.5 to 51.5 Hz

Current range

I_n 5A, I_{max} 6A (bigger currents CT)

None

Display

LCD, 4 lines 4 DGT, 1 line 10 DGT

LCD, 2 lines 4 DGT, 1 line 8 DGT

Input specifications

VDE-AR-N-4105

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2 digitals

CEI 0-21

6 digitals

4 digitals

Output specifications

Type

4 x SPST relays (N.O.)

2 x SPDT relays

Max. load AC1

5 A @ 250 Vac

8 A @ 250 Vac

Serial communication protocol

RS485-RS232

RS485

Protocol

Modbus RTU

Modbus RTU

General specifications

Power supply

115..230 VCA -20% +15%
(48..62Hz)
Option 24 VCC -20% +10%

115..230 VCA -20% +15%
(48..62Hz)
Option 24 VCC -20% +10%

Approvals / Marks

CE - CEI 0 - 21

CE - VDE V 0126-1-1:2013 - VDE AR N 4105 - CEI 0 - 21

References

CEI 0-21 (AC aux power)

PI960021HI6R4S1XX

PIDIN0021HI4R2S1XX

CEI 0-21 (DC aux power)

PI960021LI6R4S1XX

PIDIN0021LI4R2S1XX




VDE V 0126-1-1:2013 (AC aux power)

PIDIN0126HI2R2S1XX

VDE V 0126-1-1:2013 (DC aux power)

PIDIN0126LI2R2S1XX

Monitoring relays

	Frequency relays		Cos ϕ relays
Types	DFB 01 PFB 01	DFC 01	DWA 01 PWA 01
			
Dimensions HxWxD (mm)			
DIN RAIL housing	80 x 22.5 x 99.5 [D]	80 x 45 x 99.5 [D]	80 x 22.5 x 99.5 [D]
Plug-in housing	80 x 36 x 94 [P]		80 x 36 x 94 [P]
Function	Frequency monitoring relay. 1-phase AC (measures its own power supply). 2 setpoints separately adjustable. Delay time adjustable	Frequency monitoring relay. 1-phase AC (measures its own power supply). 2 setpoints separately adjustable. 2 separately adjustable delay times. 2 separate relay outputs	Cos ϕ monitoring relay. 1- or 3-phase AC (measures its own power supply). Direct input or through external CT. Power ON delay adjustable
Input specifications			
Measuring range	50 / 60 Hz	50 / 60 Hz	cos ϕ : 0.1-0.99
Output specifications			
	1 x SPDT relay	2 x SPDT relay	1 x SPDT relay
Max. load AC1	8 A / 250 VAC	8 A / 250 VAC	8 A / 250 VAC
Max. load DC12	5 A / 24 VDC	5 A / 24 VDC	5 A / 24 VDC
Electrical life	>1 x 10 ⁵ operations	>1 x 10 ⁵ operations	>1 x 10 ⁵ operations
General specifications			
Power supply	24-240 VAC	24-48 VAC [B48] 115-230 VAC [B23]	208-240 VAC [M23] 380-415 VAC [P] [M48] 380-480 VAC [D] [M48]
Approvals / Marks	CE - UL - CSA	CE - UL - CSA	CE - UL - CSA
References			
	DFB01C M24	DFC01D B48	DWA01C M23 5A
	PFB01C M24	DFC01D B23	PWA01C M23 5A
			DWA01C M48 5A
			PWA01C M48 5A

Monitoring relays

Power and power factor relays

Types	DWB 01 PWB 01	DWB 02 PWB 02	DWB 03 PWB 03
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Dimensions HxWxD (mm)	80 x 45 x 99.5 [D]	80 x 45 x 99.5 [D]	80 x 45 x 99.5 [D]
DIN RAIL housing	80 x 36 x 94 [P]	80 x 36 x 94 [P]	80 x 36 x 94 [P]
Plug-in housing			
Function	Power factor monitoring relay. 1- or 3-phase (measures its own power supply) AC TRMS. Direct input or through external CT. 2 separately adjustable setpoints. Delay time adjustable. Power ON delay adjustable	Active power monitoring relay. 1- or 3-phase (measures its own power supply) AC TRMS. Direct input or through external CT. 2 separately adjustable setpoints. Delay time adjustable. Power ON delay adjustable	Active power monitoring relay. 1- or 3-phase AC TRMS power direction (measures its own power supply). Direct input or through external CT. 2 separately adjustable setpoints. Delay time adjustable. Power ON delay adjustable

Input specifications

Measuring range	cosφ : 0.1-0.99	208-690 VAC 0.5-5 AAC 1-10 AAC 0.4 - 4 Vp	208-690 VAC 0.5-5 AAC 1-10 AAC 0.4 - 4 Vp
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Output specifications

Max. load AC1	1 x SPDT relays 8 A / 250 VAC	1 x SPDT relays 8 A / 250 VAC	1 x SPDT relays 8 A / 250 VAC
Max. load DC12	5 A / 24 VDC	5 A / 24 VDC	5 A / 24 VDC
Electrical life	>1 x 10 ⁵ operations	>1 x 10 ⁵ operations	>1 x 10 ⁵ operations




General specifications

Power supply	208-240 VAC [M23] 380-415 VAC [P] [M48] 380-480 VAC [D] [M48] 600-690 VAC [M69]	208-240 VAC [M23] 380-415 VAC [P] [M48] 380-480 VAC [D] [M48] 600-690 VAC [M69]	208-240 VAC [M23] 380-415 VAC [P] [M48] 380-480 VAC [D] [M48] 600-690 VAC [M69]
Approvals / Marks	CE - UL - CSA	CE - UL - CSA	CE - UL - CSA

References

DWB01C M23 10A	DWB02C M23 10A	DWB03C M23 10A
PWB01C M23 10A	PWB02C M23 10A	PWB03C M23 10A
DWB01C M48 10A	DWB02C M48 10A	DWB03C M48 10A
PWB01C M48 10A	PWB02C M48 10A	PWB03C M48 10A
DWB01C M69 10A	DWB02C M69 10A	DWB03C M69 10A

Monitoring relays, timers

	Temperature relays	Pump alternating relays	Timers, Delay on operate
Types	DTA 01 PTA 01 DTA 02 PTA 02	DLA 71 DLA 73	DAA 01 PAA 01
			
Dimensions HxWxD (mm)			
DIN RAIL housing	80 x 22.5 x 99.5 [D]	81 x 35.5 x 67.2 [Mini-D]	80 x 22.5 x 99.5 [D]
Plug-in housing	80 x 36 x 94 [P]		80 x 36 x 94 [P]
Function	Motor temperature monitoring relays. PTC insulated input. Automatic set-point. Short circuit detection. Latch, test and reset function (DTA02, PTA02)	Pump alternating relay. For 2 or 3 pumps. Differential or sequential mode. Automatic rotation of the pumps. Output relay managed by one independent input contact (DLA73)	Delay on operate (manual start)
Input specifications			
Time range			0.1 s - 1 s / 1 s - 10 s 6 s - 60 s / 60 s - 600 s 0.1 h - 1 h / 1 h - 10 h 10 h - 100 h
Output specifications			
	1 x SPDT relay 1 x SPST relay [DTA01]	2 x SPST relay [DLA71] [2P] 3 x SPST relay [DLA71] [3P] 3 x SPST relay [DLA73]	1 x SPDT relay [C] 2 x SPDT relays [D]
Max. load AC1	8 A / 250 VAC	5 A / 250 VAC	8 A / 250 VAC
Max. load DC12	5 A / 24 VDC	5 A / 24 VDC	5 A / 24 VDC
Electrical life	>1 x 10 ⁵ operations	>1 x 10 ⁵ operations	>1 x 10 ⁵ operations
General specifications			
Power supply	24-48 VAC / DC [D48] 115 VAC [115] 230 VAC [230]	24 / 48 VAC [B48] 115 / 230 VAC [B23]	24 VDC / 24-240 VAC [C] 24-240 VAC / DC [D]
Approvals / Marks	CE - UL - CSA	CE - UL - CSA	CE - UL - CSA
References			
	DTA01C D48	DLA71D B48 2P	DAA01C M24
	PTA01C D48	DLA71T B48 3P	PAA01C M24
	DTA01C 115	DLA71D B23 2P	DAA01D M24
	PTA01C 115	DLA71T B23 3P	PAA01D M24
	DTA01C 230	DLA73T B23 2P	
	PTA01C 230	DLA73T B48 2P	
	DTA02C D48		
	PTA02C D48		
	DTA02C 115		
	PTA02C 115		
	DTA02C 230		
	PTA02C 230		