

Schneider Service Manual

TWDLCD40DRF

1. Description

TWDLCD40DRF

3. Product Information

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TWDLCA40DRF

compact PLC base Twido - 24 V DC supply -

24 I 24 V DC - 16 O

Main

Commercial Status Commercialised

Range of product Twido

Product or component

type

Compact base controller

Discrete I/O number 40

Discrete input number 24

Discrete input voltage 24 V

Discrete input voltage

type

DC

Discrete output number 2 for transistor

14 for relay

[Us] rated supply voltage

24 V DC

Number of I/O expansion module

7

Use of slot Memory cartridge

Data backed up Internal RAM (lithium) 30 days, charging time = 10

h, battery life = 10 yr

Integrated connection

type

Non isolated serial link mini DIN, Modbus/character

mode master/slave RTU/ASCII (RS485) half duplex,

38,4 kbit/s

Serial link interface adaptor (RS232C/RS485)

Power supply

Complementary function

Event processing

PID

Complementary

Discrete input logic Sink or source

Input voltage limits 20.4...26.4 V

Discrete input current 7 mA for I0.8 to I0.23

7 mA for I0.2 to I0.5

11 mA for I0.6 to I0.7

11 mA for I0.0 to I0.1

Input impedance 3400 Ohm for I0.8 to I0.23

3400 Ohm for I0.2 to I0.5

2100 Ohm for I0.6 to I0.7

2100 Ohm for I0.0 to I0.1

Filter time 40 µs + programmed filter time for I0.6 to I0.23 at state 1

40 µs + programmed filter time for I0.0 to I0.5 at state 0

35 µs + programmed filter time for I0.0 to I0.5 at state 1

150 µs + programmed filter time for I0.6 to I0.23 at state 0

Insulation between channel and internal logic 1500 Vrms for 1 minute

Insulation resistance between channel None

Minimum load 0.1 mA

Contact resistance $\leq 30000 \mu\text{Ohm}$

Load current 2 A at 30 V DC resistive load, operating rate = 30 cyc/mn for relay output

2 A at 30 V DC inductive load, operating rate = 30 cyc/mn for relay output

2 A at 240 V AC resistive load, operating rate = 30 cyc/mn for relay output

2 A at 240 V AC inductive load, operating rate = 30 cyc/mn for relay output

Mechanical durability ≥ 20000000 cycles for relay output

Electrical durability ≥ 100000 cycles for relay output

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Current consumption 90 mA at 5 V DC at state 1
70 mA at 5 V DC at state 0
5 mA at 24 V DC at state 0
140 mA at 5 V DC state 1 + input ON
128 mA at 24 V DC state 1 + input ON
128 mA at 24 V DC at state 1
I/O connection Non-removable screw terminal block
Input/Output number <= 264 with HE-10 connector with I/O expansion module
<= 208 with spring terminal block with I/O expansion module
<= 152 with removable screw terminal block with I/O expansion module
Supply voltage limits 20.4...28.8 V
Inrush current <= 35 A
Protection type Power protection with internal fuse
Power consumption <= 17.2 W
Insulation resistance > 10 MOhm at 500 V, between supply and earth terminals
> 10 MOhm at 500 V, between I/O and earth terminals
Program memory 3000 instructions
Exact time for 1 K instruction 1 ms
System overhead 0.5 ms
Memory description Internal RAM, floating, trigonometrical
Internal RAM, double words, no floating, no trigonometrical
Internal RAM, 3000 internal words, no floating, no trigonometrical
Internal RAM, 256 internal bits, no floating, no trigonometrical
Internal RAM, 128 timers, no floating, no trigonometrical
Internal RAM, 128 counters, no floating, no trigonometrical
Free slots 1
Realtime clock With, drift: <= 30 s/month, operating time: 30 days
Positioning functions PWM/PLS 2 channel(s) at 7 kHz
Counting input number 4 channel(s) at 5000 Hz 16 bits
2 channel(s) at 20000 Hz 32 bits
Analogue adjustment points 1 point adjustable from 0...1023
1 point adjustable from 0 to 511 points
Status LED 1 LED red for module error (ERR)
1 LED per channel green for I/O status
1 LED green for RUN
1 LED green for PWR
1 LED for user pilot light (STAT)
Product weight 0.525 kg
Environment
Immunity to microbreaks 10 ms
Dielectric strength 500 V for 1 minute, between supply and earth terminals
1500 V for 1 minute, between I/O and earth terminals
Product certifications CSA
UL
Marking CE
Ambient air temperature for operation 0...55 °C
Ambient air temperature for storage -25...70 °C
Relative humidity 30...95 % without condensation
IP degree of protection IP20
Operating altitude 0...2000 m
Storage altitude 0...3000 m
Vibration resistance 4 gn, 25...100 Hz mounting on: plate or panel with fixing kit
1.6 mm, 2...25 Hz mounting on: plate or panel with fixing kit
1 gn, 57...150 Hz mounting on: 35 mm symmetrical DIN rail
0.075 mm, 10...57 Hz mounting on: 35 mm symmetrical DIN rail
Shock resistance 15 gn for 11 ms
Not classified
Depth 70 mm
Height 95 mm

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