

Schneider Service Manual

TWDLCDA40DRF

1. Description

TWDLCDA40DRF

3. Product Information

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 μ s + programmed filter time for I0.6 to I0.23 at state 1

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

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

150 μ s + 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 μ 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 $\geq$ 20000000 cycles for relay output

Electrical durability $\geq$ 100000 cycles for relay output

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

