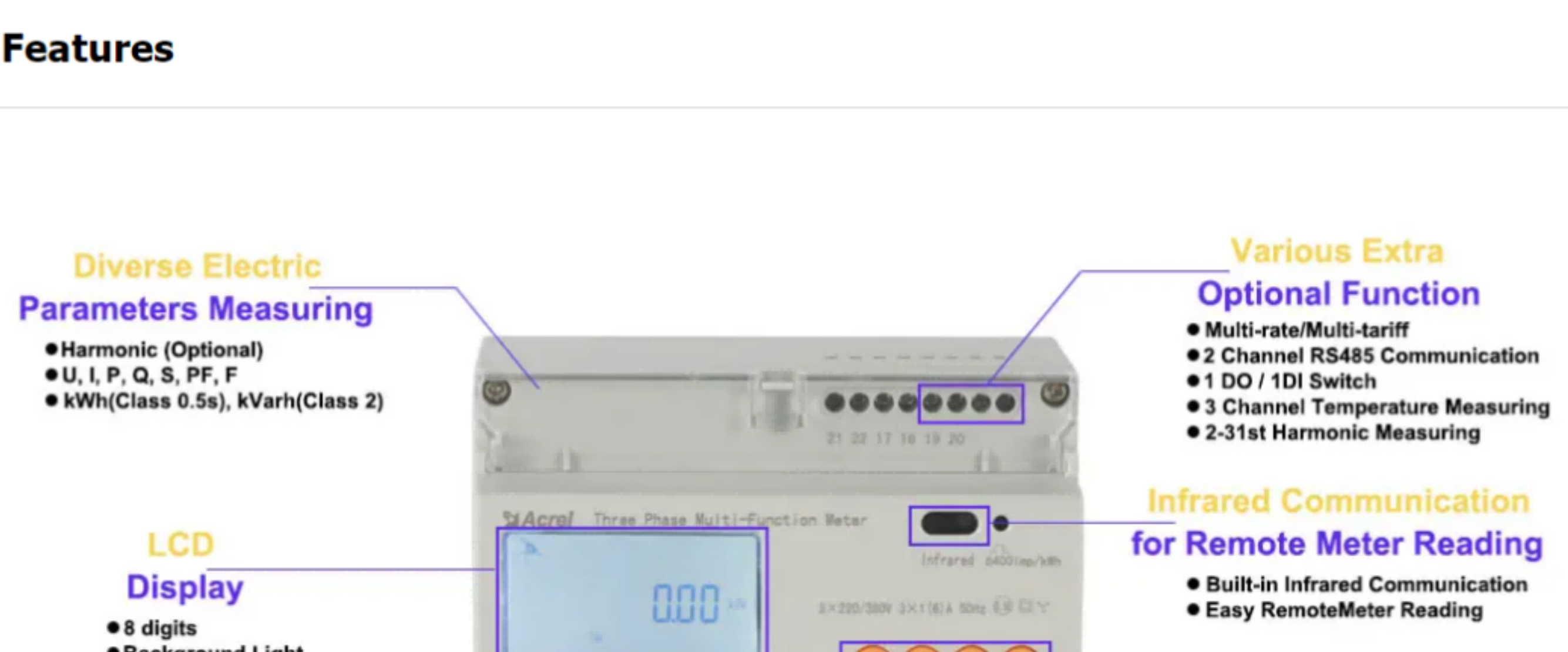
ADL3000-E or DTSD1352 Three-phase Multi-function DIN Rail Energy Meter

- **Measurement:** 3-phase kWh (0.5S), Active Power, Reactive Power, Current, Voltage, Harmonic and etc
- **Voltage Rating:** 3x220/380V, 3x57.7/100V (3P4W), 3x380V, 3x100V (3P3W)
- **Current Rating:** 3x10(80)A; 3x1(6)A
- **Frequency:** 45~65Hz
- **Commnunication:** RS485 (MODBUS-RTU) and Infrared
- **Multi-rate:** Spike, Peak, Valley and Flat kWh
- **Extra Function:** Cable Temperature Measurement and DO/DI
- **Display:** LCD (8 digits)
- **Dimension:** 127*88*70mm (L*W*H)
- **Wiring:** 3-phase 4wire; 3-phase 3-wire
- **Installation:** 35mm DIN Rail
- **Standard&Certificate:** IEC; CE; EAC

Inquiry

Features


Diverse Electric
Parameters Measuring
●Harmonic (Optional)
●U, I, P, Q, S, PF, F
●kWh(Class 0.5s), kVarh(Class 2)
LCD
Display
●8 digits
●Background Light
Optional
Connection Method
●Direct Connection
●First Connection via CTs
Various Extra
Optional Function
●Multi-rate/Multi-tariff
●2 Channel RS485 Communication
●1 DO / 1DI Switch
●3 Channel Temperature Measuring
●2-31st Harmonic Measuring
Infrared Communication
for Remote Meter Reading
●Built-in Infrared Communication
●Easy RemoteMeter Reading
HMI for
Parameters Setting
●Communication (Address and etc)
●All Display
●Transformation Ratio

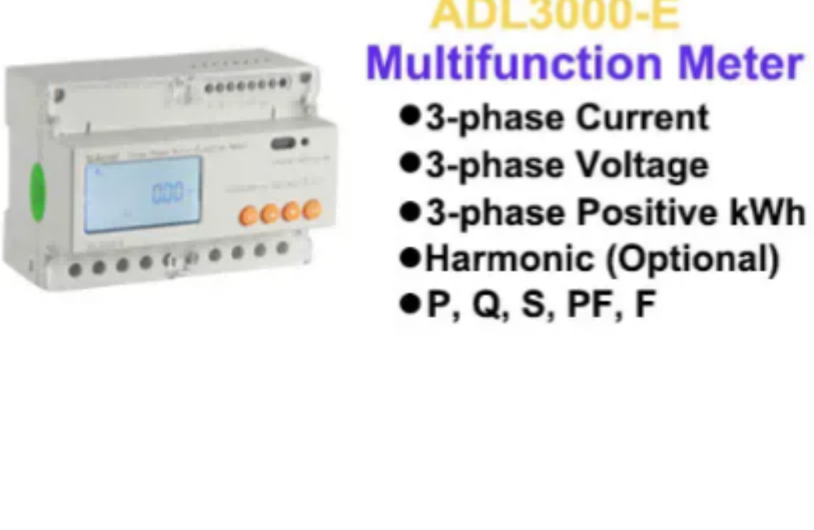
Diverse Electricity Parameters Measurement

- Harmonic (2~31st voltage&current)---Optional
- F (Frequency)
- U (3-phase Voltage)
- I (3-phase Current)
- kWh (3-phase positive Kilowatt-hours)
- kVarh (Kilovar-hours)
- P (Power)
- Q (Reactive power)
- S (Apparent power)
- PF (Power factor)

ADL3000-E
Multifunction Meter
●3-phase Current
●3-phase Voltage
●3-phase Positive kWh
●Harmonic (Optional)
●P, Q, S, PF, F

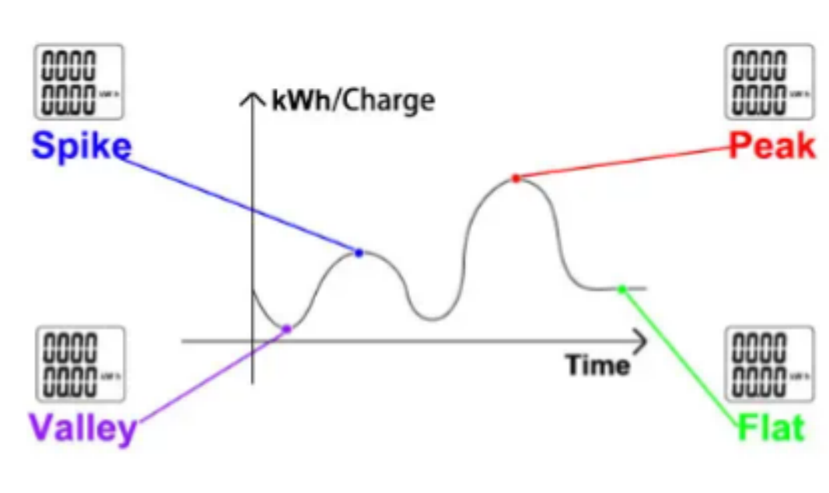
Multi-rate/Flexible Tariff

- 4 Time zone
- 4 Tariff rate (Spike, Peak, Flat, Valley)
- 2 Time period list
- 14 Time period by day
- Data Frozen (last 48 months or last 90 days)
- Max demand and occurrence time


kWh/Charge
Spike
Peak
Time
Valley
Flat

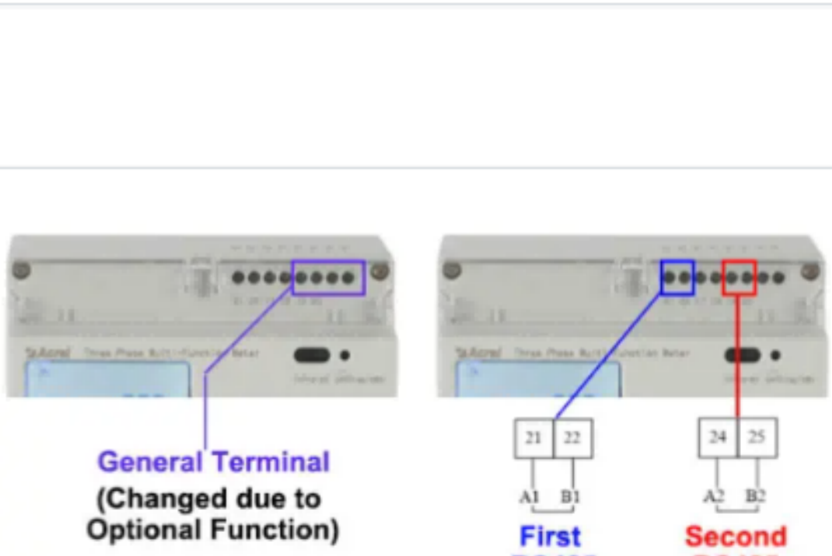
2 Channel RS485 Communication

- Protocol: MODBUS-RTU
- 1 channel RS485 or 2 channel RS485 both optional


General Terminal
(Changed due to
Optional Function)
21 22
A1 B1
First
RS485
24 25
A2 B2
Second
RS485

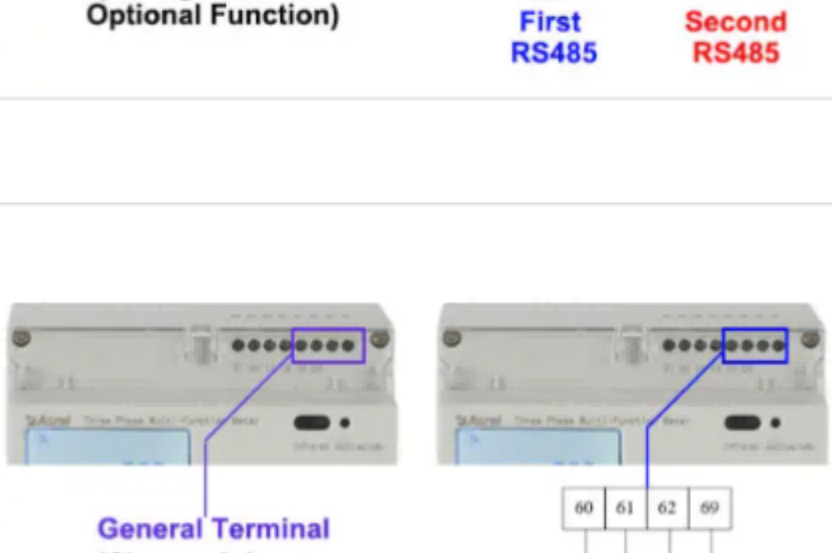
3-channel Temperature Measuring

- Thermistor: NTC temperature sensor
- Measuring Range: -40℃~+125℃


General Terminal
(Changed due to
Optional Function)
60 61 62 69
T1 T2 T3 COM
3-channel
Temperature Measuring

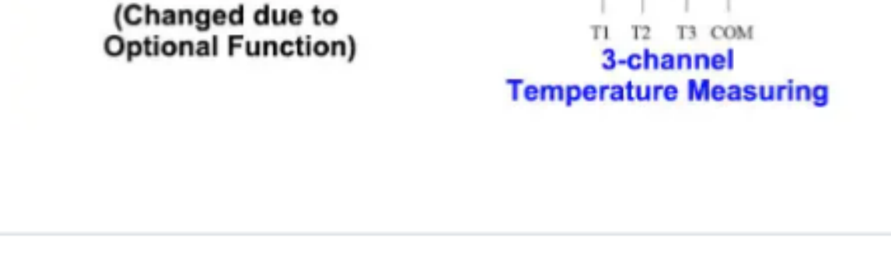
DO/DI Switch

- 1 channel DO
- 1 channel DI


General Terminal
(Changed due to
Optional Function)
40 41
DO+ DO-
1 DO
Switch
30 39
DI COM
1 DI
Switch

HMI for Parameters Setting

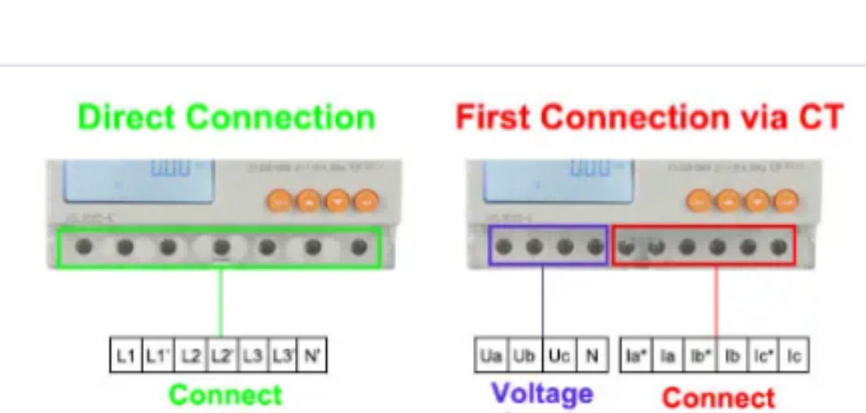
- Code
- Protocol
- Address
- Baud rate
- Parity
- All Display



SET	Menu	Enter/quit menu
▲	Voltage and current up	Check the voltage and current Leftward and change flash in programming menu
▼	Power down	Check the power Rightward and change the value on flash
↵	Energy enter	Check the energy Enter in programming menu

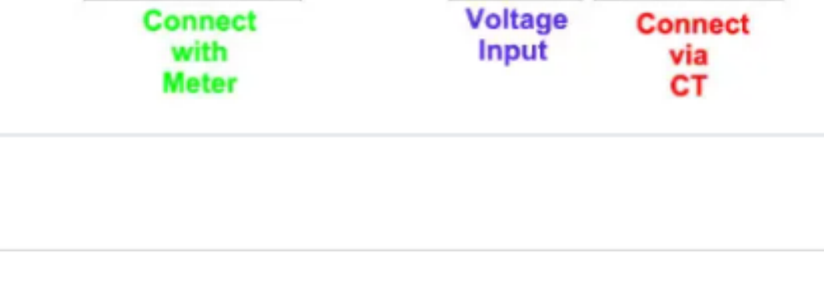
Infrared Communication for Remote Meter Reading

- Built-in infrared communication
- Easy Remote Meter Reading
- Optional Connection Methods
- Direct Connection with Meter
- First Connection via CT.

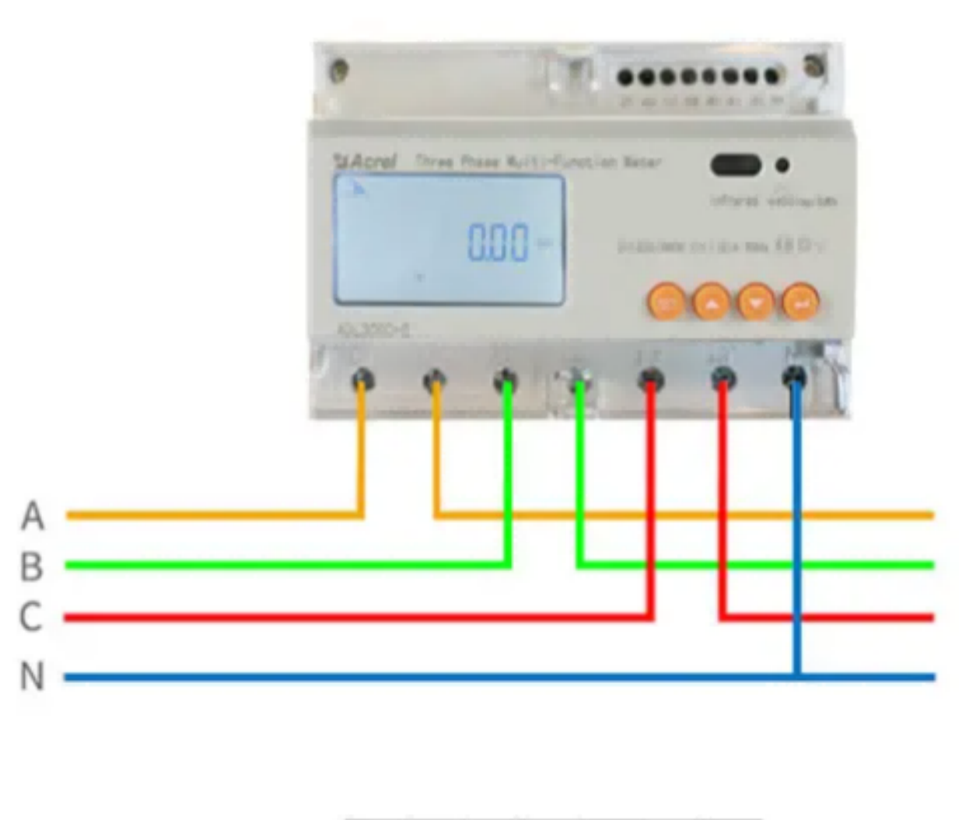

Infrared Communication for Remote Meter Reading
IR
ADL3000-E
Meter Reader

Optional Connection Methods

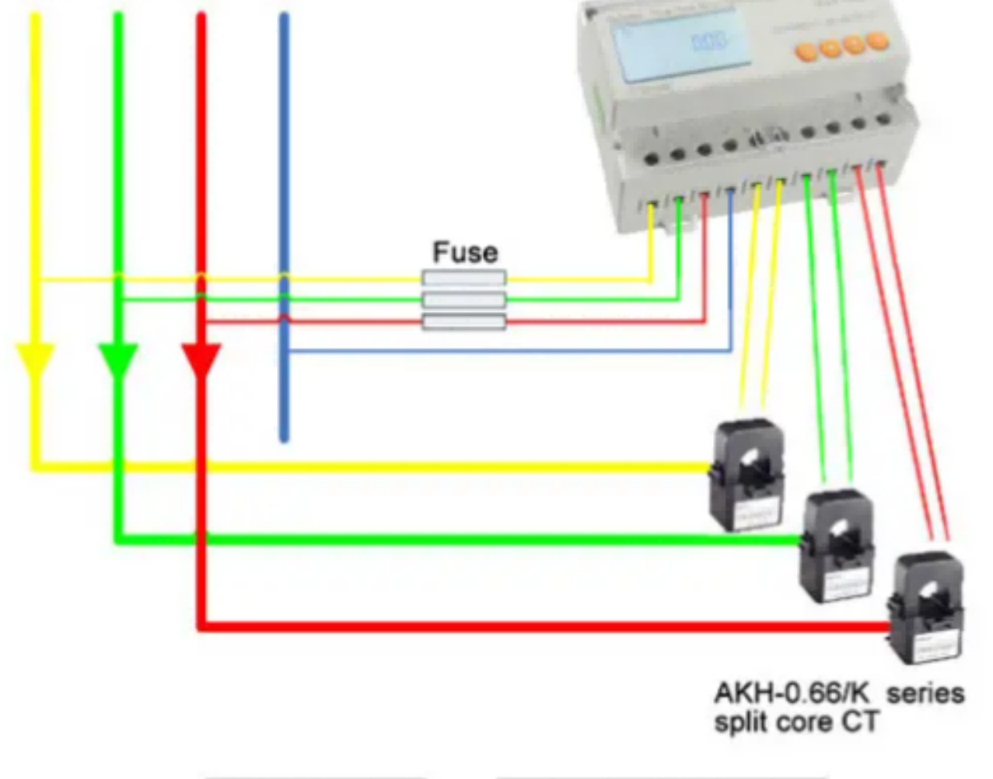
- Direct Connection with Meter
- First Connection via CT.


Direct Connection
L1 L1' L2 L2' L3 L3' N'
Connect
with
Meter
First Connection via CT
Ua Ub Uc N Ia* Ia Ib* Ib Ic* Ic
Voltage
Input
Connect
via
CT

Wiring Instruction


A
B
C
N
L1 L1' L2 L2' L3 L3' N'
A
B
C
N

Direct connection with 3- phase load line via CTs built in ADL3000-E (3-phase 4-wire)


A B C N
Fuse
AKH-0.66/K series
split core CT
Ua Ub Uc N
Ia* Ia Ib* Ib Ic* Ic
A
B
C
N

Second connection with 3- phase load line via extra selected CTs (3-phase 4-wire)

Installation Instruction

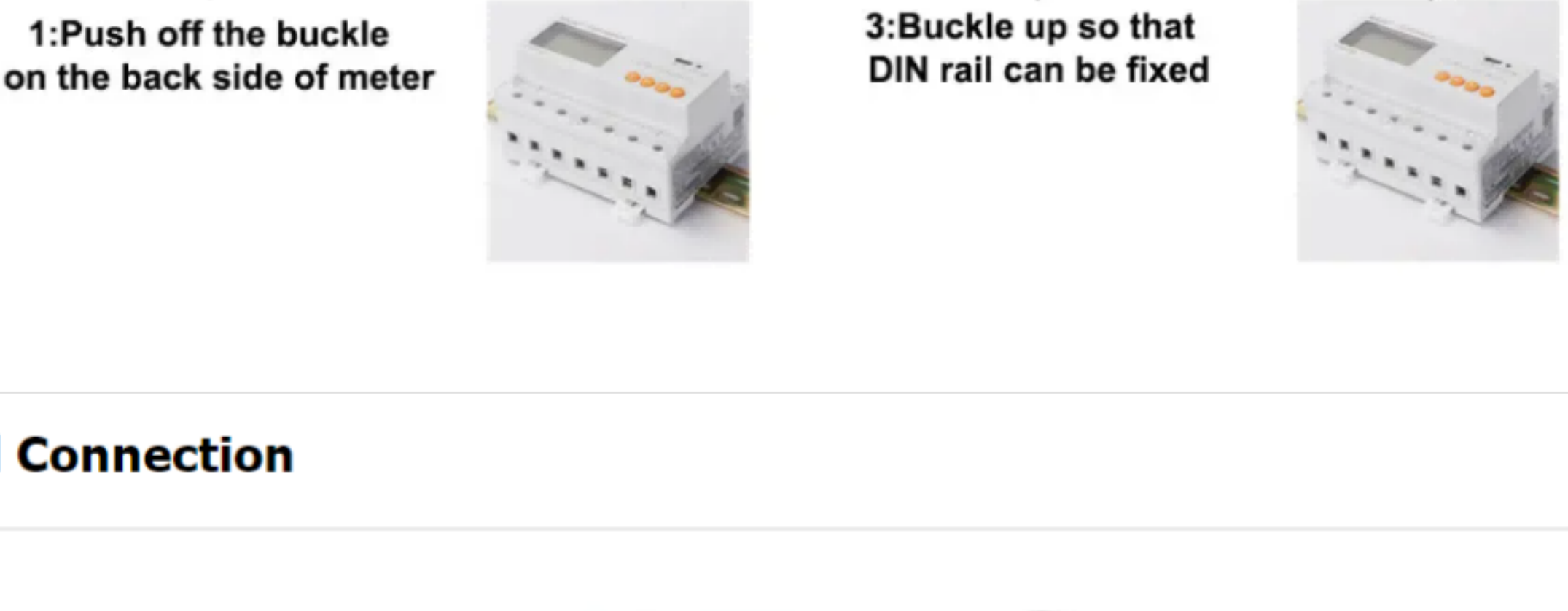
1:Push off the buckle on the back side of meter

2:Install 35mm DIN rail on the slot behind meter

3:Buckle up so that DIN rail can be fixed

4:Successfully install the meter

Typical Connection


Switch
Gateway
Single phase
kWh meter
Single phase
kWh meter
Single phase
kWh meter
Three-phase
kWh meter
Three-phase
kWh meter

1.Function description

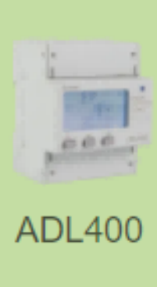
Function	Function description	Function provide
Measurement of kWh	Active kWh (positive and negative)	■
	Reactive kWh (positive and negative)	■
	A, B, C phase positive active kWh	■
Measurement of electrical parameters	U、I、P、Q、S、PF、F	■
		■
Measurement of	2~31ST Voltage and current harmonic	□Note 1
LCD Display	8 bits section LCD display, background light	■
Key programming	4 keys to communication and set parameters	■
Pulse output	Active pulse output	■
	Reactive pulse output	□Note 2
	Clock pulse output	□Note 2
Multi-tariff and functions	Active switch input	□Note 3
	Switch output	□Note 2
	Adapt 4 time zones, 2 time interval lists, 14 time interval by day and 4 tariff rates	□
	Max demanded kWh and time happened	□
	Frozen data on last 48 months, last 90days	□
	Date, time	□
Communication	Infrared communication	■
	The first communication path: Communication interface: RS485, Communication protocol: MODBUS-RTU	□
	The second communication path: Communication interface: RS485, Communication protocol: MODBUS-RTU	□Note 3
Temperature measurement	Support 3 outlay NTC temperature	□Note 4

"■" means standard, "□" means optional.

2.Technical parameter

Specification		3 phase 3 wires, 3 phase 4 wires
Voltage	Reference voltage	3×100V、3×380V、3×57.7/100V、3×220/380V
	Consumption	<10VA(Single phase)
	Impedance	>2MΩ
	Accuracy class	Error±0.2%
Current	Input current	3×1(6)A (second connection with 3- phase load line via extra selected CTs) 3×10(80)A (direct connection with 3-phase load line via CTs built in ADL3000-E)
	Consumption	<1VA(Single phase rated current)
	Accuracy class	Error±0.2%
Power		Active, reactive, apparent power, error±0.5%
Frequency		45~65Hz, Error±0.2%
Temperature		-40℃~99℃
Energy		Active energy(Accuracy class:0.5, 1), reactive energy(Accuracy class 2)
Clock		≤0.5s/d
Energy pulse output		1 active optocoupler output, 1 reactive optocoupler output
Switching output		1 Switching output
Switching input		1 optocoupler input
Width of pulse		80±20ms
Pulse constant		6400imp/kWh,400imp/kWh(Correspond with the basic current)
Interface and communication		RS485：Modbus RTU
Range of communication address		Modbus RTU:1~ 247；
Baud rate		1200bps~19200bps
Relative temperature		-25℃~+55℃
Relative humidity		≤95%(No condensation)

Note: Price below Only for Reference, Contact us for your Best Quotation !!!

Shape	Function	FOB Shanghai (USB)	Option	Module Price(USD)	Option
ADL10-E	1P single phase electric energy meter,U I P Q S PF,10(60)A, single total active energy measure.	25	/C: RS485(Modbus-RTU)	9	/
ADL100-ET	2P single phase multi-function energy meter, U I P Q S PF,10(60)A, single total active energy measure,supporting infrared communication.	50	/C: RS485(Modbus-RTU)	9	At will
			/F: multi tariff energies	9	
ADL200	Single phase Kwh meter, Measurement of U、I、P、Q、S、PF、Hz and total active energy, 10（80）A, Accuracy: class 1	45	/C: RS485(Modbus-RTU)	9	/
			/F:Multi tariff	9	/
 ADL400	Three phase Kwh meter, Measurement of U、I、P、Q、S、PF、F and harmonic, 3*1(6)A,3*10(80)A, Accuracy: active energy: class 0.5s, reactive energy: class 2	67	/C: RS485(Modbus-RTU)	9	At will
			/F:Multi tariff	9	
ADL3000-E	7P three phase multi-function energy meter, U I P Q S PF,3×1(6)A or 3×10(80)A, split-phase forward active energy calculation,total forward and reverse active or reactive energy calculation,2-31st harmonic, supporting infrared communication.	100	/C: RS485(Modbus-RTU)	9	K,2C, T can only one
			/F: multi tariff energies	9	
			/K: 1D1/1DO	5	
			/2C: the second route RS485(Modbus-RTU)	5	
			/T: three channels temperature measurement(NTC)	9	
			/H:2-31st harmonic	6	
ADL3000-E/CT (3 split transformers included)	7P three phase multi-function energy meter, U I P Q S PF, 3×1(6)A or 3×10(100)A,split-phase forward active energy calculation,total forward and reverse active or reactive energy calculation,2-31st harmonic, supporting infrared communication,3 split transformers spec: 5A:1.25mA.	145	/C:RS485(Modbus-RTU)	9	K,2C, T can only one
			/F: multi tariff energies	9	
			/K: 1DI/1DO	5	
			/2C: the second route RS485(Modbus-RTU)	5	
			/T: three channels temperature measurement(NTC)	9	