

DIN Rail Single Phase kWh Meter

ADL10 (1 module) / ADL100 (3 modules)



1. General

ADL10 and ADL100 DIN rail single phase kWh meter are the professional smart energy meter. ADL10 has a compact design, and it is very easy to install anywhere. ADL100 has the complete functions: different current ranges; RS485 communication; up to 3 kWh tariffs per day etc..

They are widely used in the office buildings, shopping malls, residences, airports and metro etc... to realize the kWh counts in one by one unit.

They adopts micro-electronics technique, and it has many advantages such as compact, light, delicate, accurate. With their good capability of anti-emi and low-power, they comply with international standard IEC 60136 and IEC 60512.

2. Technical feature

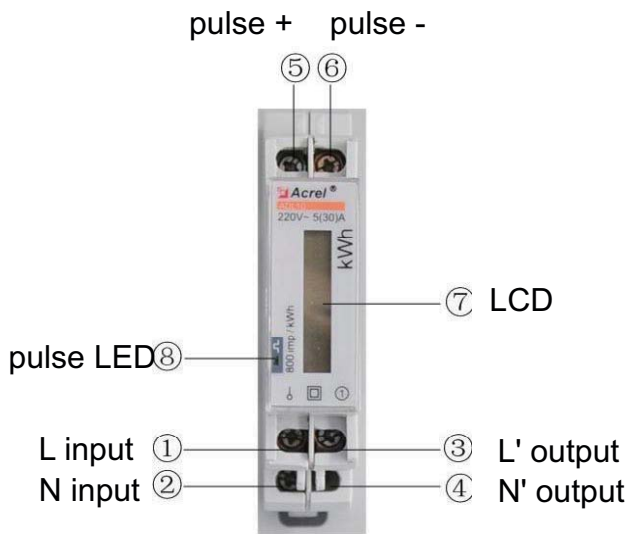
Parameters		ADL10-E	ADL100-E
Photo			
Measurement		kWh	U, I, kWh, multi kWh tariffs (Option /F)
Current input	Range	5(30)A	1.5(6);5(20);10(40);20(80)A
	Start		20mA
Voltage input		220 V (-20%, +15%) (can order special others)	
Frequency		50 or 60Hz	
Class		kWh 1.0%	I,U 0.5%; kWh 1.0%
Display		LCD, 6 digits	LCD, 7 digits, loop display different data
Multi tariffs		-	Up to 3 tariffs and 4 time zones
RS485 port		-	Modbus-RTU (Option /C)
Pulse output		800imp/kWh, 80ms+/-20ms	1600imp/kWh, 80ms+/-20ms
Housing	LxWxH	18.0×90.3×63.1mm (1 module)	88×125×73 mm (3 modules)
	Mounting	35mm standard DIN rail mounting	
	Protection	IP20	
	Weight	80g	350g
Env	Work T	-20C~60C	
	Stock T	-30C~70C	
	Humidity	≤95%	
MTBF		> 50000 hours	

3. Specification

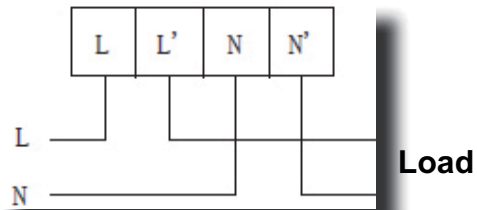
Type	Features	Type	Features
ADL10-E	Measure only kWh	-	-
ADL100-E	Measure only kWh	ADL100-E/C	Measure only kWh, with RS485
ADL100-EF	Measure multi tariff kWhs	ADL100-EF/C	Measure multi tariff kWhs, with RS485

4. Wiring

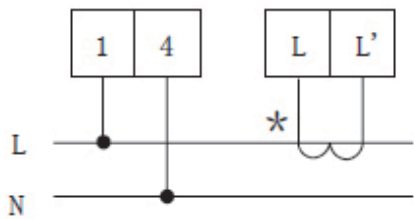
4.1 ADL10-E



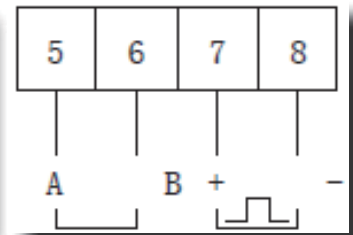
4.2 ADL100-E



Connect directly



Connect with CT

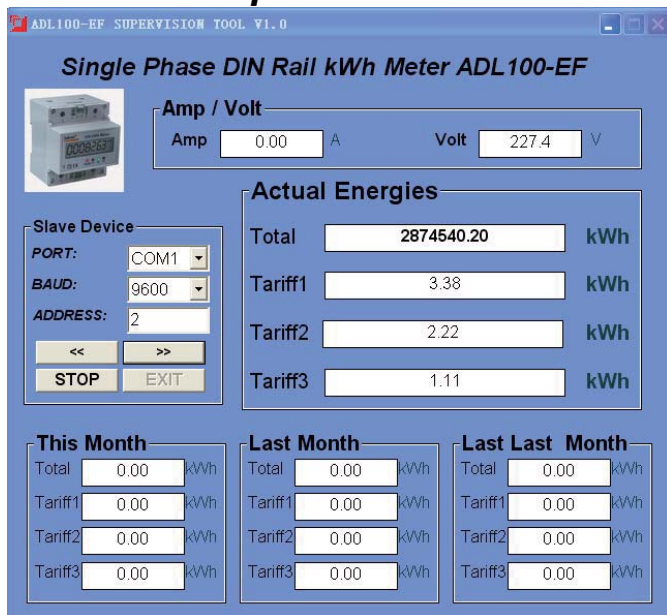


RS485

Pulse output

5. Softwares

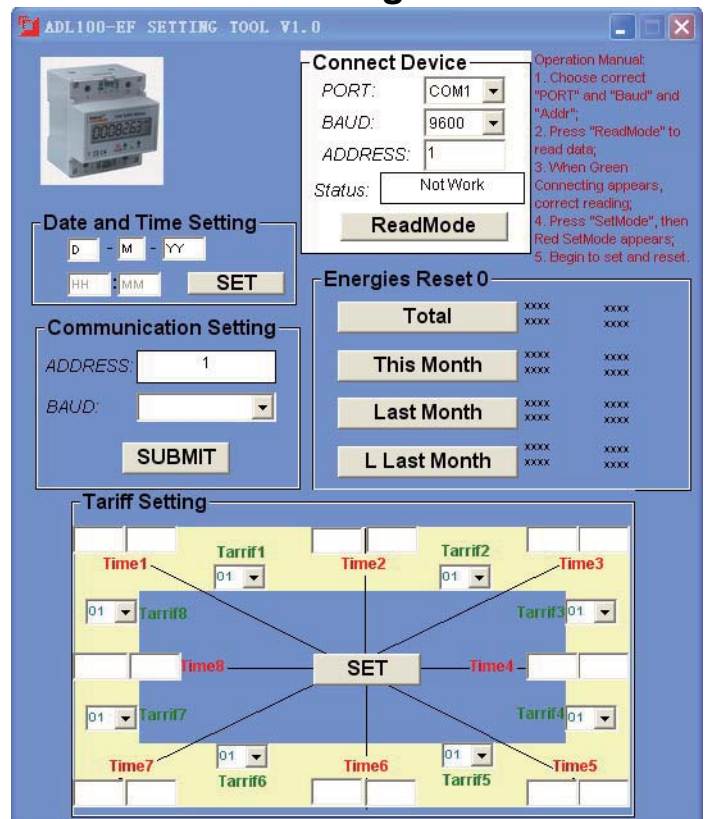
Supervision Tool



The Supervision Tool is one of our free software, which is designed special to read multi tariff meter data. The user can download it on ACREL's website. By buttons "<<" and ">>", the user can easily check different ADL100-EF on in same Modbus network one by one on computers.

The Setting Tool which will be sent with customer's order. The user can use it to set ADL100-EF tariff time zones, device address, baudrate, meter's date and time.

Setting Tool



6. Order example

When your order, please inform us the range of your measuring and the options.

For example:

Need the DIN rail single phase kWh meter ADL100-E, the ranges are 230VAC 20(80)A, with multi tariff, with RS485 communication, 60Hz

The product type is **ADL100-EF/C (230VAC, 20(80)A, 60Hz,tariffs)**

DIN Rail Three Phase kWh Meter



ADL300 (kWh) / ADL301 (+/-kWh) / ADL3000 (multifunction) (7 modules case)

1. General

ADL300-E and ADL301-E DIN rail three phase meter are the professional smart energy meter. They have different current ranges; RS485 communication; up to 4 kWh tariffs per day etc.. ADL300-E count only kWh and ADL301-E can count +kWh/-kWh.

They are widely used in factories, office buildings, shopping malls, airports and metro etc... to realize the kWh counts in one by one unit. They adopt micro-electronics technique, and it has many advantages such as compact, light, delicate, accurate. With their good capability of anti-emi and low-power, they comply with international standard IEC 60136 and IEC 60512.

2. Technical feature

Parameters		ADL300-E	ADL301-E	ADL3000-E
Photo				
Measurement		kWh	+kWh / -kWh	I,U,3V,F,P,Q,S,4E,MD
Current input	Range	1.5(6);5(20);10(40);20(80)A; 25(100)A		
	Start	20mA		
Voltage input		3x230/400 V (-20%, +15%) (can order special others)		
Frequency		50 or 60Hz		
Class		I,U 0.5%; kWh 1.0%		
Display		LCD, 7 digits, loop display different data		
Multi tariffs		Up to 3 tariffs and 4 time zones (Option F)		
RS485 port		Modbus-RTU (Option /C)		
Pulse output		1600imp/kWh, 80ms+/-20ms	1600imp/kWh (/kvarh), 80ms+/-20ms	
Special function		-	alarm of loose volt alarm of error phase sequence	
Housing	LxWxH	88×125×73 mm (7 modules)		
	Mounting	35mm standard DIN rail mounting		
	Protection	IP20		
	Weight	750g	800g	
Env	Work T	-20C~60C		
	Stock T	-30C~70C		
	Humidity	≤95%		
MTBF		> 50000 hours		

3. Specification

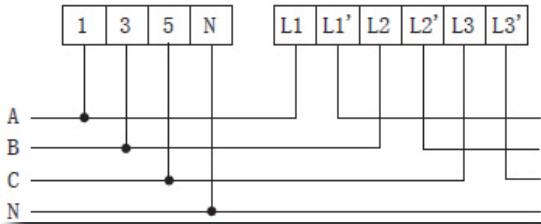
Type	Features	Type	Features
ADL300-E	Measure only kWh	ADL301-E	Measure only +/- kWh
ADL300-EF	Measure multi tariff kWhs	ADL301-E/C	Measure only +/- kWh, with RS485
ADL300-EF/C	Measure multi tariff kWhs, with RS485	ADL3000-E	All AC data, with RS485
		ADL3000-E/C	All AC data, with RS485, with RS485

Addr: No.253 Yulv Road, Jiading District, 201801, Shanghai, China
Tel:0086-21-69158338 Fax: 0086-21-69158303
Email:acrel008@vip.163.com Web: http://www.acrel.cn

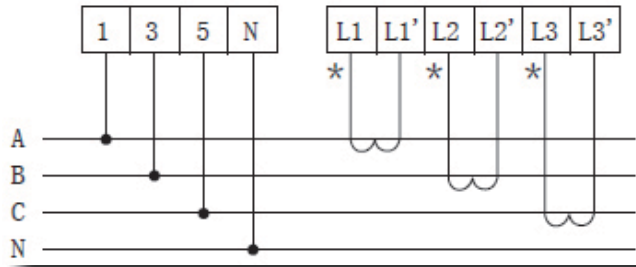
 **Acrel**[®]
Shanghai Acrel Ltd.

4. Wiring

4.1 Input

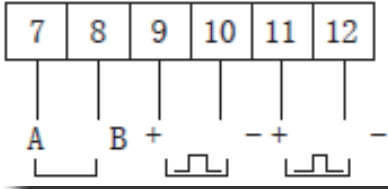


Connect directly



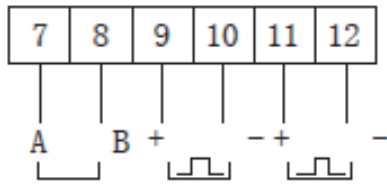
Connect with CT

4.2 Output



RS485 Clock pulse kWh pulse

ADL300-E / ADL301-E



RS485 kWh pulse kvarh pulse kWh pulse

ADL3000-E

5. Softwares

Supervision Tool

ADL300-EF SUPERVISION TOOL V3.1

Three Phase DIN RAIL kWh Meter ADL300-EF

Actual Energies

Total	2874540.20	kWh
Tariff1	3.38	kWh
Tariff2	2.22	kWh
Tariff3	1.11	kWh
Tariff4	42949672.95	kWh

Slave Device

PORT: COM1
BAUD: 9600
ADDRESS: 2

STOP EXIT

This Month		Last Month		Last Last Month	
Total	5.12 kWh	Total	0.00 kWh	Total	0.00 kWh
Tariff1	1310.72 kWh	Tariff1	0.00 kWh	Tariff1	0.00 kWh
Tariff2	335544.34 kWh	Tariff2	0.00 kWh	Tariff2	0.00 kWh
Tariff3	0.00 kWh	Tariff3	0.00 kWh	Tariff3	0.00 kWh
Tariff4	0.00 kWh	Tariff4	0.00 kWh	Tariff4	0.00 kWh

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The Setting Tool which will be sent with customer's order. The user can use it to set ADL300-EF tariff time zones, device address, baudrate, meter's date and time.

Setting Tool

ADL300-EF SETTING TOOL V1.0

Connect Device

PORT: COM1
BAUD: 9600
ADDRESS: 1
Status: Not Work

ReadMode

Date and Time Setting

D - M - YY
HH : MM SET

Communication Setting

ADDRESS: 1
BAUD: [dropdown]

SUBMIT

Energies Reset 0

Total	xxxx	xxxx
This Month	xxxx	xxxx
Last Month	xxxx	xxxx
L Last Month	xxxx	xxxx

Tariff Setting

Time1 Tarrif1 01 Time2 Tarrif2 01 Time3 Tarrif3 01
Time4 Tarrif4 01
Time5 Tarrif5 01
Time6 Tarrif6 01
Time7 Tarrif7 01
Time8 Tarrif8 01

SET

6. Order example

When your order, please inform us the range of your measuring and the options. For example: Need the DIN rail single phase kWh meter ADL300-E, three phase four wires, the ranges are 3x230/400V 20(80)A, with multi tariff, with RS485 communication, 60Hz. The product type is ADL300-EF/C (3P4W, 3x230/400V, 20(80)A, 60Hz,tariffs)