

# FU2200

## RS485 Three Phase Stop Digital Power Meter

*FU2200 is a powerful three phase stop digital power meter, it can measure and display all the electrical parameters as well as harmonics ratio of current and voltage. Four modules can be plugged-in together: RS-485 communication, digital input/output, energy pulse and DC 4-20mA analog output module, in order to meet all kinds of demands.*



### Features

1. Can measure all the electrical parameters
2. Four modules can choose
3. Can measure the harmonics
4. High accuracy 0.5s
5. PT, CT transformation ratio is settable

### Parameters

#### Electrical parameters

Power supply (AC/DC)	AC85-265V / DC85-330V, DC18-90V (optional) Power consumption: <4VA
Measurement parameters	Voltage (Ph-N); Voltage (Ph-Ph); Current; Frequency; PF; Active Power(W); Reactive Power(Q) ; Apparent Power(S), 3 <sup>rd</sup> -19 <sup>th</sup> harmonics
Harmonics	Total harmonics ratio of phase-voltage Total harmonics ratio of current 3 <sup>rd</sup> -19 <sup>th</sup> harmonics ratio of Phase-voltage (RS485 output) 3 <sup>rd</sup> -19 <sup>th</sup> harmonics ration of current (RS485 output)
Maximum value	Max. value for voltage/current Max. value for active power Max. value for reactive power Max. value for apparent power
Computation	Forward active power energy Reverse active power energy Forward active power energy Reverse reactive power energy

Архангельск (8182)63-90-72  
 Астана (7172)727-132  
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 Барнаул (3852)73-04-60  
 Белгород (4722)40-23-64  
 Брянск (4832)59-03-52  
 Владивосток (423)249-28-31  
 Волгоград (844)278-03-48  
 Вологда (8172)26-41-59  
 Воронеж (473)204-51-73  
 Екатеринбург (343)384-55-89  
 Иваново (4932)77-34-06

Ижевск (3412)26-03-58  
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 Казань (843)206-01-48  
 Калининград (4012)72-03-81  
 Калуга (4842)92-23-67  
 Кемерово (3842)65-04-62  
 Киров (8332)68-02-04  
 Краснодар (861)203-40-90  
 Красноярск (391)204-63-61  
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Магнитогорск (3519)55-03-13  
 Москва (495)268-04-70  
 Мурманск (8152)59-64-93  
 Набережные Челны (8552)20-53-41  
 Нижний Новгород (831)429-08-12  
 Новокузнецк (3843)20-46-81  
 Новосибирск (383)227-86-73  
 Омск (3812)21-46-40  
 Орел (4862)44-53-42  
 Оренбург (3532)37-68-04  
 Пенза (8412)22-31-16

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 Рязань (4912)46-61-64  
 Самара (846)206-03-16  
 Санкт-Петербург (812)309-46-40  
 Саратов (845)249-38-78  
 Севастополь (8692)22-31-93  
 Симферополь (3652)67-13-56  
 Смоленск (4812)29-41-54  
 Сочи (862)225-72-31  
 Ставрополь (8652)20-65-13

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 Томск (3822)98-41-53  
 Тула (4872)74-02-29  
 Тюмень (3452)66-21-18  
 Ульяновск (8422)24-23-59  
 Уфа (347)229-48-12  
 Хабаровск (4212)92-98-04  
 Челябинск (351)202-03-61  
 Череповец (8202)49-02-64  
 Ярославль (4852)69-52-93

Киргизия (996)312-96-26-47

Россия (495)268-04-70

Казахстан (772)734-952-31

**Electrical parameters - continued**

Measuring range	30-600V, 0-6A, 45-65Hz, -1 ~ 0 ~ 1
Measuring accuracy	Frequency: 0.1% Electric energy: 0.5%, 1.0% Voltage : 0.2%±0.1V Current : 0.2%±0.001A Power : 0.5% ±0.4W Power factor : 0.5% ±0.001
Display	Wide screen angle; Light blue back-lit LCD display; 5 display figures; 6 operation keys.
Communication (expansion)	Support RS485 port with expansion module FM-485, Modbus-RTU communication protocol. 32 (128) meters are connected as a network.
Programmable	Measuring system: 3P4W/3P3W etc. Transformation ratio : PT,CT. Communication: Address: 1-247; Baud: 1200~19200; Parity bit: N/E/O Energy: reset
Energy pulse (expansion)	FM-E2 provides active & reactive energy pulse output. 6 pulse parameters can be choose. Range: 0.1-10000kWh/kvarh; Dry contact output (1AX100V).
Data collection (expansion)	Each FM-K2 module can collect 2-ways dry contact counting
Control (expansion module)	Each FM-K2 provides 2 relay contact outputs, which can be controlled by communication or the measured parameters.
Analog output (expansion module)	Each FM-A20 module provides 2 ways of DC 4-20mA outputs, the function-relations can be set according to the measured parameters.
Connection mode	3P4W, 3P4W BAL, 3P3W, 3P3W BAL, 1P2W, 1P3W

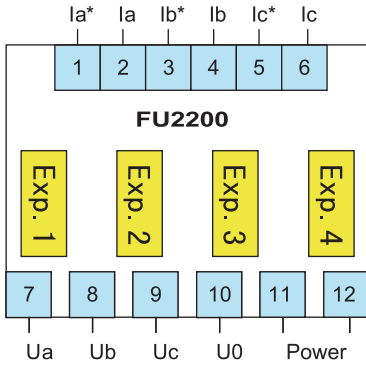
**Mechanical parameters**

Dimensions (mm)	Mounting panel: 96x96 Thickness: 20 Depth: 60 (without expansion module) 80 (without expansion module)
Mounting	Panel mounting Trepanning: 92x92mm

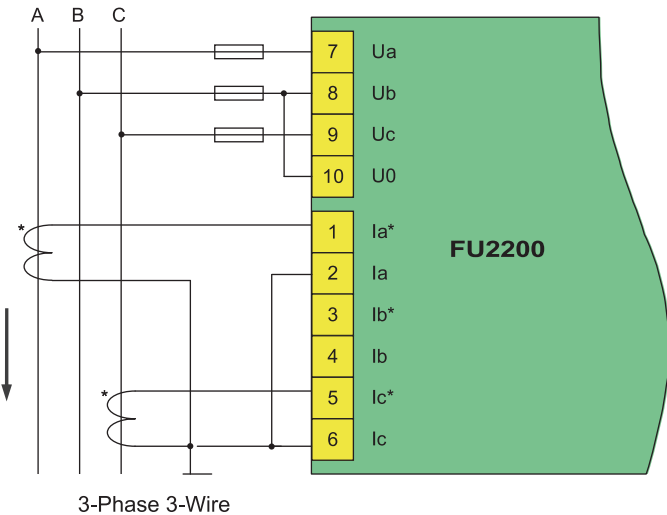
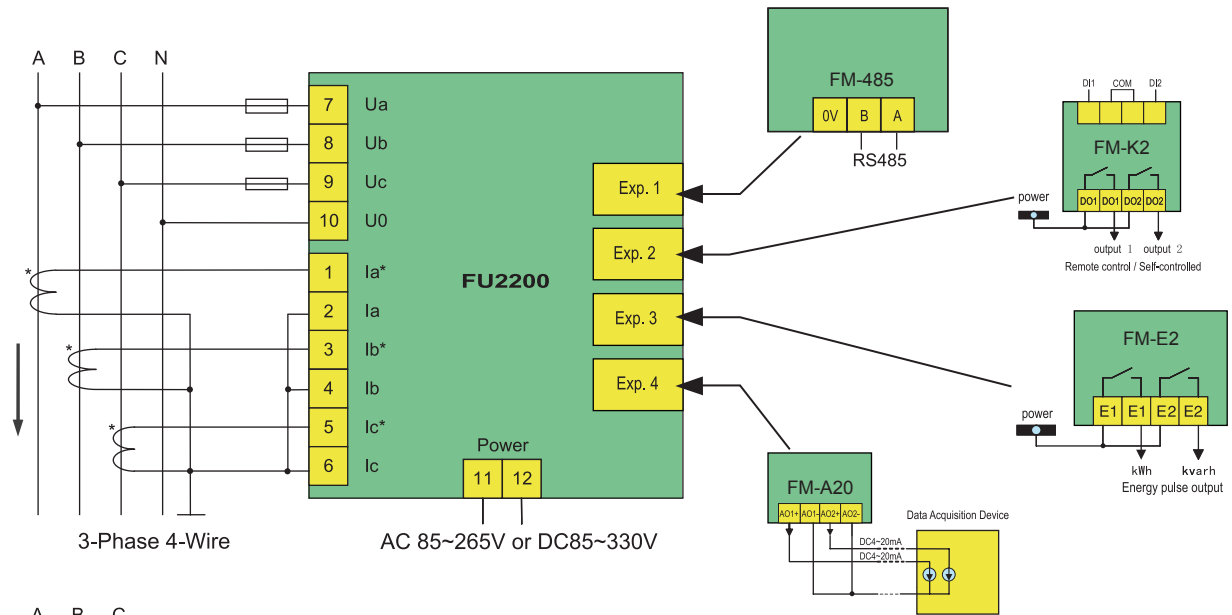
**Environmental conditions**

Temperature	-25 to +50°C
Humidity	20%-95%RH, Without condensation

# Terminal Diagram



# Reference Connecting Diagram



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