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RAPIDUS 218R

Stock Keeping Unit (SKU): 606021

Power Factor Controller (1Ø-8 level)

Commercial Information

Product Sales Code	606021
Package Unit	1 pcs.
Customs Tariff Number	903289000000
Weight Per Unit Including Packaging	415g kg.

Technical Information

CONNECTION DATA

Connection Type	Single phase (L-L or L-N) voltage connection with 1 CT
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General

Measurement System	1Ø
Lcd Screen	+
Language Support	Turkish, English, Russian
Password Protection	+
Voltage Transformer Ratio Vtr	1 - 5000
Current Transformer Ratio Ctr	1 - 5.000
Number Of Measurements In One Period	512
Lcdscreen Refresh Rate	1 sn.
Networks	TT, TN, IT
Signal Waveforms	
Battery	+

Real Time Clock	+
Four Quadrant Measurement	4
Demand Period	1-60 min. adjustable
Phase Diagram	Available
Minmaxdemand Values	+

Compensation Modes

Rapidus Smart Control Mode	+
Manual	+
Linear	+
Circular	+
Sequential	+

Step Configurations

Manual Definition	+
Predefined	1-1-1-1, 1-1-2-2, 1-2-2-4, 1-2-3-3, 1-2-4-4, 1-1-2-4, 1-2-3-4, 1-2-4-8, 1-1-2-3
Power Kvar	0.00-1000 adjustable
Type	3Ø capacitor, 3Ø shunt reactor adjustable
Dcm	+
Fixed Step Assignment	+

Power Factor Settings

Target 1 Cos	0.8 cap. to 0.8 ind. adjustable
Target 2 Cos	0.8 cap. to 0.8 ind. adjustable
Dual Cos Target	+
4 Quadrant Operation For Generators	+
Learnable Step And Connections	+

Energy Measurement

Multiple Sub Tariffs Peak On Peak And Off Peak	
1 Phase Energy Measurement	
3 Phase Energy Measurement	Available

Current Measurement Input

Measuring Range	10mA-6A AC
Overvoltage Category	300 V Cat III
Voltage Fluctuation Measurement	2 kV
Power Consumption	<0.2 VA
Intermittent Overload	100A for 1 sec.
Sampling Frequency Between 45 65 Hz	25.6 kHz

Voltage Measurement Input

Overvoltage Category	300 V Cat III
Measuring Range L N	95-272 VAC ±10%
Measuring Range L L	95-410VAC ±10%
Frequency Measuring Range	45-65 Hz
Power Consumption	<0.1 VA
Sampling Frequency Between 45 65 Hz	25.6 kHz

Power Quality Measurements

Thd Voltage As	+
Thd Current As	+
Harmonics For Current And Voltage Phases	Up to 51st

Measuring Accuracy Iec 61557 12

Total Active Power	Class 0.2
Total Reactive Power	Class 1
Total Reactive Energy	Class 2
Frequency	Class 0.05
Current	Class 0.2
Neutral Current	Class 0.5
Voltage	Class 0.2
Power Factor	Class 0.5
Thdv Thdi	Class 1
Total Apparent Power	Class 0.2

Total Active Energy	Class 0.5
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Measuring Accuracy Iec 62053 22

Total Active Energy	Class 0.25
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Measuring Accuracy Iec 62053 23

Total Reactive Energy	Class 2
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Compensation Relay Outputs

Number Of Outputs	8+2 (If alarm relay outputs are used for compensation)
Type	NO (SPST)
Max Switching Current	2A
Max Switching Voltage	250VAC
Max Switching Power	1250VA
Mechanical Operating Life	10.000000 operations
Electrical Operating Life No Side	5×104(5A@250VAC) 1×105(5A@30VDC)

Alarm Relay Outputs

Number Of Outputs	2
Type	NO (SPST)
Max Switching Current	4A
Max Switching Voltage	250 VAC
Max Switching Power	1250 VA
Mechanical Operating Life	= 10.000000 operations
Electrical Operating Life No Side	5×104(5A@250VAC) 1×105(5A@30VDC)

Generator Day Night Input

Number Of Inputs	1
Frequency	45-65Hz
Input	95-240VAC

Inputs And Outputs

Digital Outputs	--
Analog Outputs	--

Power Supply

Backup Supply Input	--
Voltage	La-Lb den 95-410VAC ±10%
Frequency	45-65Hz
Consumption	< 10VA

Mechanical Properties

Weight G	415
Protection Class	Front IP40 / Rear IP20
Mounting Type	Panel Mount
Packaging Quantity	1

Cable Cross Sections

Voltage Current All Relay Outputs Generator Input	2.5mm² - 14AWG with ferrule - 4mm² - 12AWG without ferrule, 2x1.5mm² - 2x16AWG
Rs485	1.5mm² - 16AWG with ferrule - 1.5mm² - 16AWG without ferrule, 2x0.75mm² - 2x18AWG

Environmental Conditions

Operating Temperature	-20°C +55°C
Storage Temperature	-30°C +80°C
Relative Humidity Non Condensing	Max. 95%

Emc Emi

En 61000 6 1	2011
En 61000 6 3 A1 Ac	2013

Diagrams

Mains Connection	
Step Output Connections	

Communication

Protocol	Modbus RTU
Baud Rate	2400-115200 bps adjustable

Parity	---
Stop Bit	1
Slave Id	1-247
Isolation	2000V RMS

Control Process And Functions

Phase Switching Angle	±45 degree adjustable
Average Time	Off, 5 sec, 10 sec, 20 sec, 30 sec, 40 sec, 50 sec, 60 sec adjustable
Step Deactivation Time	1-600 sec. adjustable
Step Discharge Time	3-1000 sec. adjustable
Step Activation Time	1-600 sec. adjustable

Time Recorded Data Storage

Hourly Records	1920 Hours x 68 Different Paramaters
Daily Records	240 Days x 68 Different Paramaters
Monthly Records	36 Months x 68 Different Paramaters
Demand	4 Months x 16 Different Parameters
Alarm Records	50