

# RAC20-K Series ◊ AC/DC Power Supply

## 20W ◊ Input: 100V-240(277)VAC

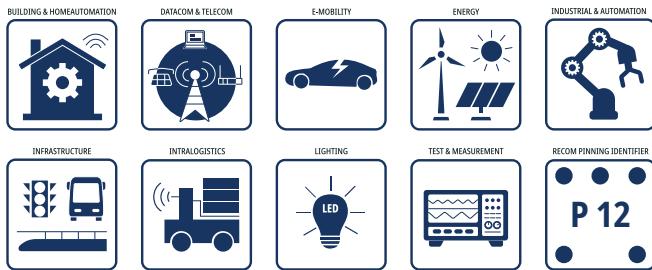
### FEATURES

- Wide input range 85-264VAC / 85-305VAC
- Standby mode optimized PSU (ENER Lot 6)
- Operating Altitude up to 5000m
- Operating temperature range: -40°C to +85°C
- Class II installations (without FG)
- EMC compliant without external components
- No load power consumption 40mW typ.
- Wired connection variants
- 3 year warranty



THT= 2.0 x 1.0 x 0.9 inch  
Wired= 2.0 x 1.0 x 0.9 inch

### APPLICATIONS



### SAFETY & EMC



### DESCRIPTION

The RAC20-K series are highly efficient PCB-mount power conversion modules with ultra-low energy losses especially in light load conditions, making them a benchmark for always-on and standby mode operations, which are typically coming along with IoT and smart applications. The power supply units cover worldwide mains input range of 85VAC up to 305VAC and come with international safety certifications for industrial, AV and ITE as well as household standards. These AC/DC modules operate in a temperature range of -40°C to +85°C with up to 5000m operating altitude and offer fully protected single or dual outputs as well as EMC class B compliance without the need of any external components in floating connections. Wired connected "/NE" Versions are OVC III approved.

### SELECTION GUIDE

| Part Number                     | Input Voltage Range [VAC] |          | Output Voltage [VDC] | Output Current nom. [mA] | Efficiency <sup>(1)</sup> typ. [%] | Max. Capacitive Load <sup>(2)</sup> [μF] | Output Power continuous [W] |
|---------------------------------|---------------------------|----------|----------------------|--------------------------|------------------------------------|--|-----------------------------|
|                                 | Basic                     | Extended |                      |                          |                                    |  |                             |
| RAC20-05SK <sup>(3, 5)</sup>    | 85-264                    | 85-305   | 5                    | 4000                     | 84                                 | 10000                                    | 20                          |
| RAC20-07SK <sup>(5)</sup>       | 85-264                    | -        | 7                    | 2860                     | 85                                 | 15000                                    | 20                          |
| RAC20-12SK <sup>(3, 4, 5)</sup> | 85-264                    | 85-305   | 12                   | 1670                     | 86                                 | 8000                                     | 20                          |
| RAC20-15SK <sup>(3, 5)</sup>    | 85-264                    | 85-305   | 15                   | 1333                     | 86                                 | 1500                                     | 20                          |
| RAC20-24SK <sup>(3, 4, 5)</sup> | 85-264                    | 85-305   | 24                   | 830                      | 85                                 | 1000                                     | 20                          |
| RAC20-48SK <sup>(5)</sup>       | 85-264                    | -        | 48                   | 410                      | 85                                 | 330                                      | 20                          |
| RAC20-12DK <sup>(3)</sup>       | 85-264                    | 85-305   | ±12                  | ±833                     | 84                                 | ±1200                                    | 20                          |
| RAC20-15DK <sup>(3)</sup>       | 85-264                    | 85-305   | ±15                  | ±670                     | 84                                 | ±1000                                    | 20                          |

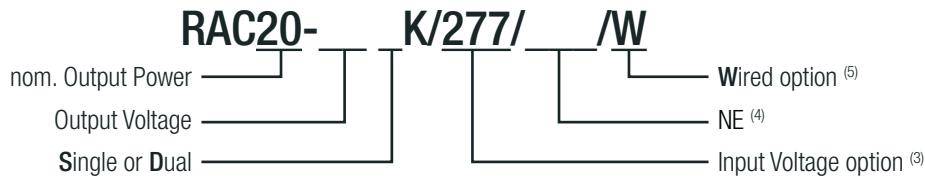
Note1: Efficiency is tested at 230VAC input and constant resistive load at +25°C ambient

Note2: Max Cap Load is tested at nominal input and full resistive load

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## Model Numbering



Note3: Add suffix "/277" for extended input voltage range (85-305VAC)  
without suffix= Basic input range 85-264VAC

For detail information refer to „Nominal Input Voltage“

Note4: use suffix "/NE/W" for wired items with OVC III rating and enhanced EMI filtering

Note5: Add suffix „W“ for wired version (single output only, combination of "/W" with "/277", only available as "/277/NE/W" for 12V and 24V output)  
without suffix= standard THT version

## ORDERING INFORMATION

| Model      | Output Voltage | Package Type Suffix |        |                             |             |
|------------|----------------|---------------------|--------|-----------------------------|-------------|
|            |                | Basic (no suffix)   | "/277" | "/W"                        | "/277/NE/W" |
| RAC20-05SK | 5VDC           | y                   | y      | y                           | N/A         |
| RAC20-07SK | 7VDC           | y                   | N/A    | on request                  | N/A         |
| RAC20-12SK | 12VDC          | y                   | y      | use "/NE/W" for new designs | y           |
| RAC20-15SK | 15VDC          | y                   | y      | y                           | N/A         |
| RAC20-24SK | 24VDC          | y                   | y      | use "/NE/W" for new designs | y           |
| RAC20-48SK | 48VDC          | y                   | N/A    | y                           | N/A         |
| RAC20-12DK | ±12VDC         | y                   | y      | N/A                         | N/A         |
| RAC20-15DK | ±15VDC         | y                   | y      | N/A                         | N/A         |

y= standard portfolio; on request= MOQ may apply on project base; N/A= not available

BASIC CHARACTERISTICS (measured @  $T_{AMB} = 25^{\circ}C$ , nom.  $V_{IN}$ , full load and after warm-up unless otherwise stated)

| Parameter   | Condition           |                 | Min.   | Typ. | Max.   |
|---|---------------------|-----------------|--------|------|--------|
| Nominal Input Voltage   | 50/60Hz             | basic version   | 100VAC |      | 240VAC |
|   |                     | "/277" versions |        |      | 277VAC |
| Operating Range <sup>(6)</sup>  | standard version    | 47-63Hz         | 85VAC  |      | 264VAC |
|   |                     | DC              | 120VDC |      | 370VDC |
|   | /277 versions       | 47-63Hz         | 85VAC  |      | 305VAC |
|   |                     | DC              | 120VDC |      | 430VDC |
| Input Current   | 115VAC              |                 |        |      | 450mA  |
|   | 230VAC              |                 |        |      | 400mA  |
|   | 277VAC              |                 |        |      | 300mA  |
| Inrush Current  | cold start at +25°C | 115VAC          |        |      | 20A    |
|   |                     | 230VAC          |        |      | 40A    |
|   |                     | 277VAC          |        |      | 50A    |
| No Load Power Consumption   | 230VAC              |                 |        | 40mW | 100mW  |
| Ecodesign Standby Mode Use<br>(Available output power for stated input power) | $P_{IN} = 0.5W$     |                 |        |      | 0.3W   |
|   | $P_{IN} = 1.0W$     |                 |        |      | 0.7W   |
|   | $P_{IN} = 2.0W$     |                 |        |      | 1.6W   |

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### BASIC CHARACTERISTICS (measured @ $T_{AMB} = 25^\circ\text{C}$ , nom. $V_{IN}$ , full load and after warm-up unless otherwise stated)

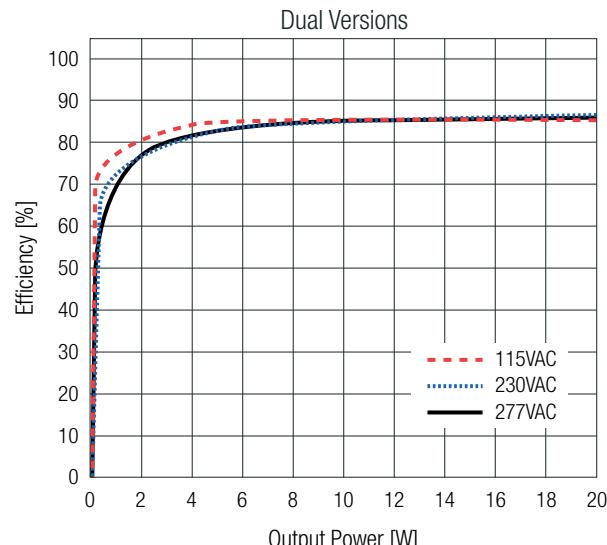
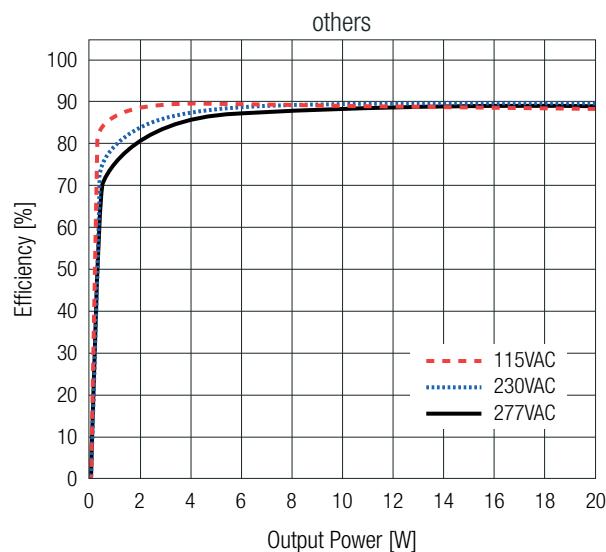
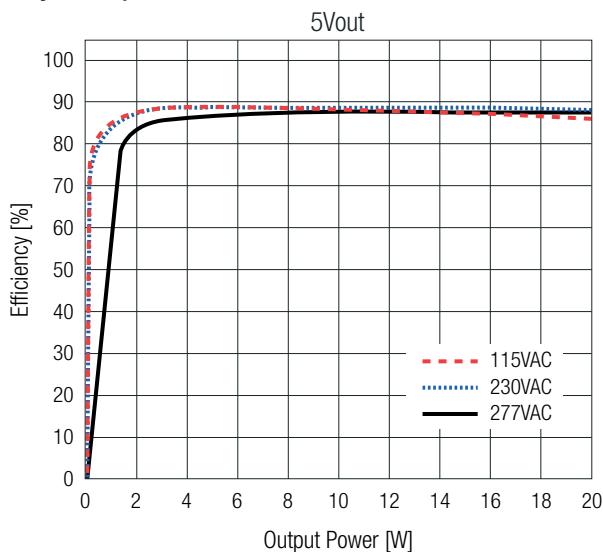
| Parameter                              | Condition                                      | Min.   | Typ.     | Max.       |
|--|--|--------|----------|------------|
| Input Frequency Range                  | AC Input                                       | 47Hz   |          | 63Hz       |
| Minimum Load                           | single   | 0%     |          |            |
|  | dual (required for regulation on both outputs) |        | 10%      |            |
| Power Factor                           | 115VAC   | 0.6    |          |            |
|  | 230VAC   | 0.5    |          |            |
|  | 277VAC   | 0.45   |          |            |
| Start-up Time                          |  |        | 150ms    |            |
| Rise Time                              |  |        | 40ms     |            |
| Hold-up Time                           | 115VAC   |        | 12ms     |            |
|  | 230VAC   |        | 60ms     |            |
|  | 277VAC   |        | 90ms     |            |
| Internal Operating Frequency           |  |        |          | 150kHz     |
| Output Ripple and Noise <sup>(7)</sup> | 20MHz BW                                       | 5Vout  | 100mVp-p |            |
|  |  | others |          | 1% of Vout |

Note6: The products were submitted for safety files at AC-Input operation (90-305VAC).

Note7: Measurements are made with a 1.0 $\mu\text{F}$  MLCC across output (low ESR)

The test setup can have an impact on ripple noise values (placement of scope probe, capacitors, it's specifications, wires, PCB tracks, distances, etc.)

### Efficiency vs Output Power



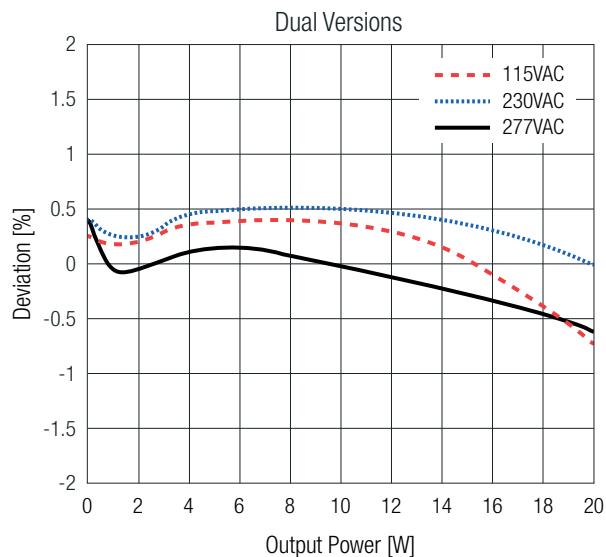
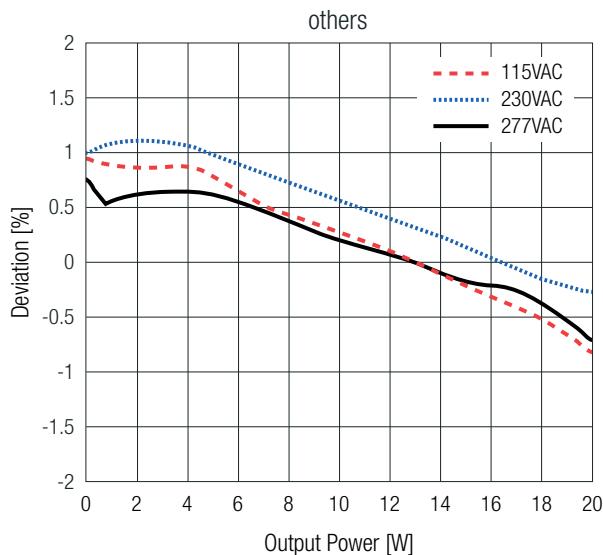
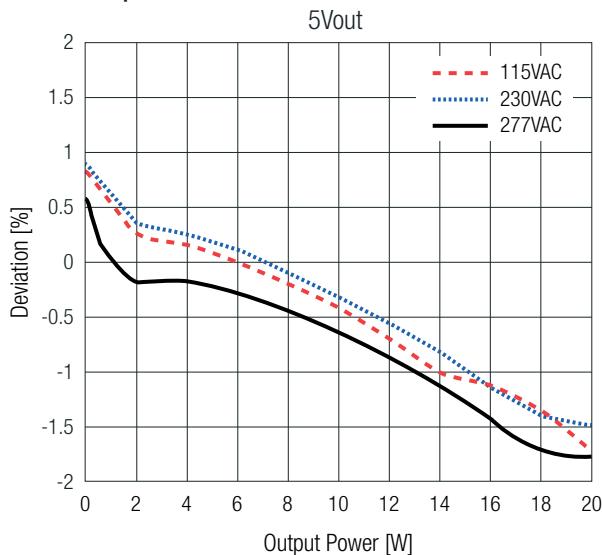
**RAC20-K Series ◊ AC/DC Power Supply**

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**REGULATIONS (measured @  $T_{AMB} = 25^\circ C$ , nom.  $V_{IN}$ , full load and after warm-up unless otherwise stated)**

| Parameter                      | Condition            |                                  | Value             |
|--------------------------------|----------------------|----------------------------------|-------------------|
| Output Accuracy                |                      |                                  | $\pm 2.0\%$ typ.  |
| Line Regulation                | others               | low line to high line, full load | $\pm 0.5\%$ typ.  |
|                                | "/277/NE/W"          | low line to high line, full load | $\pm 1.0\%$ typ.  |
| Load Regulation <sup>(8)</sup> | 10% to 100% load     |                                  | 2.0% typ.         |
| Cross Regulation               | dual output only     |                                  | $\pm 10.0\%$ typ. |
| Transient Response             | 25% load step change |                                  | 4.0% max.         |
|                                | recovery time        |                                  | 500 $\mu$ s typ.  |

Note8: Operation below 10% load will not harm the converter, but specifications may not be met

**Deviation vs. Output Power****PROTECTIONS (measured @  $T_{AMB} = 25^\circ C$ , nom.  $V_{IN}$ , full load and after warm-up unless otherwise stated)**

| Parameter                      | Type                |                  | Value                                       |
|--------------------------------|---------------------|------------------|---|
| Input Fuse <sup>(9)</sup>      | internal            | standard version | T3.15A, slow blow type                      |
|                                |                     | "/NE/W"          | T2A, slow blow type                         |
|                                |                     | "/277" version   | non, refer to „ <b>Protection Circuit</b> “ |
| Short Circuit Protection (SCP) | below 100m $\Omega$ |                  | hiccup, auto recovery                       |
| Over Voltage Protection (OVP)  | others              |                  | 150%-195%, latch off mode                   |
|                                | "/NE/W"             |                  | 120%-180%, latch off mode                   |
| Over Current Protection (OCP)  | others              |                  | 110%-130%, hiccup mode                      |
|                                | "/NE/W"             |                  | 120%-150%, hiccup mode                      |

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### PROTECTIONS (measured @ $T_{AMB} = 25^{\circ}C$ , nom. $V_{IN}$ , full load and after warm-up unless otherwise stated)

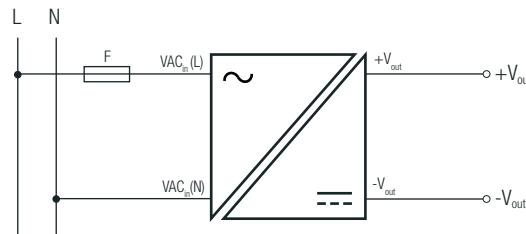
| Parameter                             | Type                           |   |         | Value          |  |
|---------------------------------------|--------------------------------|---|---------|----------------|--|
| Over Voltage Category <sup>(10)</sup> | others                         |   |         | OVC II (5000m) |  |
|                                       | "/NE/W"                        | according to 62368-1, 60335-1, 61558, 61347 |         |                |  |
| Class of Equipment                    |                                |   |         | Class II       |  |
| Isolation Voltage <sup>(11)</sup>     | I/P to O/P                     | tested for 1 minute                         | others  | 3kVAC          |  |
|                                       |                                |   | "/NE/W" | 4kVAC          |  |
| Isolation Resistance                  | I/P to O/P, $V_{iso} = 500VDC$ |   |         | 1GΩ min.       |  |
| Isolation Capacitance                 |                                |   |         | 100pF max.     |  |
| Insulation Grade                      |                                |   |         | reinforced     |  |

Note9: Refer to local safety regulations if input over-current protection is also required

Note10: For OVC III requirements please use "/NE/W" variants or refer to [RAC20NE-K.pdf](#)

Note11: For repeat Hi-Pot testing, reduce the time and/or the test voltage

### Protection Circuit for RAC20-xxK/277 only:



### ENVIRONMENTAL (measured @ $T_{AMB} = 25^{\circ}C$ , nom. $V_{IN}$ , full load and after warm-up unless otherwise stated)

| Parameter                           | Condition  |   |         | Value                         |  |  |
|-------------------------------------|--|---|---------|-------------------------------|--|--|
| Operating Ambient Temperature Range | @ natural convection (0.1m/s)<br>refer to „Derating Graph“ | full load                                   | others  | -40°C to +55°C                |  |  |
|                                     |  |   | "/NE/W" | -40°C to +60°C                |  |  |
|                                     |  | with derating                               | all     | -40°C to +85°C                |  |  |
| Maximum Case Temperature            |  |   |         | +95°C                         |  |  |
| Temperature Coefficient             |  |   |         | ±0.05%/K                      |  |  |
| Operating Altitude <sup>(12)</sup>  | all models   |   |         | 5000m (OVC II)                |  |  |
|                                     | only "/NE/W" versions                                      | according to 62368-1, 60335-1, 61558, 61347 |         | 5000m (OVC III)               |  |  |
| Operating Humidity                  |  |   |         | 20% - 90% RH max.             |  |  |
| IP Rating                           |  |   |         | IP20                          |  |  |
| Pollution Degree                    |  |   |         | PD2                           |  |  |
| Vibration                           | 10-500Hz, 2G 10min./1cycle, period 60min. along x,y,z axes |   |         | according to MIL-STD-202G     |  |  |
|                                     | 3 axis, 40 g half sine, 11 ms shock                        |   |         | according to IEC 60068-2-27   |  |  |
|                                     | 5-500Hz, 20m/s <sup>2</sup> , 1 Oct/min, 15min             |   |         | according to IEC 60068-2-65   |  |  |
|                                     | 10-500Hz; RMS 23,4m/s <sup>2</sup> ; 15min                 |   |         | according to IEC 60068-2-64   |  |  |
| MTBF                                | according to MIL-HDBK-217, G.B.                            | $T_{AMB} = +25^{\circ}C$                    |         | >1196 x 10 <sup>3</sup> hours |  |  |
|                                     |  | $T_{AMB} = +40^{\circ}C$                    |         | >955 x 10 <sup>3</sup> hours  |  |  |
| Design Lifetime                     | full load  | $T_{AMB} = +25^{\circ}C$                    |         | 130 x 10 <sup>3</sup> hours   |  |  |
|                                     |  | $T_{AMB} = +55^{\circ}C$                    |         | 16 x 10 <sup>3</sup> hours    |  |  |

Note12: Recognized by safety agency for safe operation up to 5000m. High altitude operation may impact the performance and lifetime.

Please contact RECOM tech support for advice

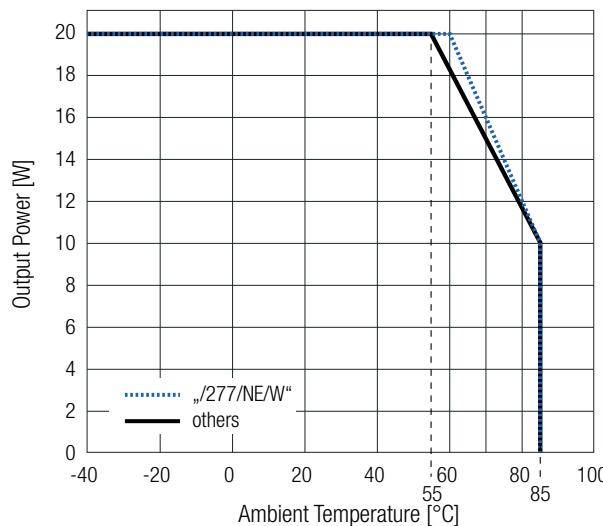
# RAC20-K Series ◊ AC/DC Power Supply

## 20W ◊ Input: 100V-240(277)VAC

**ENVIRONMENTAL (measured @  $T_{AMB} = 25^{\circ}\text{C}$ , nom.  $V_{IN}$ , full load and after warm-up unless otherwise stated)**

### Derating Graph

(@ Chamber and natural convection 0.1m/s



Note13: Output power derating for Line-input of less than 90VAC  
(de-rate linearly from 100% at 90VAC to 90% at 85VAC)

### SAFETY & CERTIFICATIONS (COVERING ALL VERSIONS EXCEPT "/NE/W")

| Certificate Type (Safety)  | Report Number            | Standard  |
|--|--------------------------|---|
| Audio/Video, information and communication technology equipment - Safety requirements  | E224736                  | UL62368-1, 2nd Edition, 2014<br>CAN/CSA C22.2 Nr. 62368-1-14, 2nd Ed. 2014      |
| Audio/Video, information and communication technology equipment - Safety requirements (CB Scheme)  | E491408-A6008-CB-1       | IEC62368-1:2014 2nd Edition   |
| Audio/Video, information and communication technology equipment - Safety requirements (LVD)  |                          | EN62368-1:2014 + A11:2017   |
| Household and similar electrical appliances – Safety – Part 1: General requirements (CB Scheme)  | 4392216.50<br>4397422.50 | IEC60335-1:2010 5th Edition + AM1:2013  |
| Household and similar electrical appliances – Safety – Part 1: General requirements  | LCS180508046AS           | IEC60335-1:2010 + AMD2:2016 + COR1:2016<br>EN60335-1:2012 + A11:2014 + A13:2017 |
| Safety of power transformers, power supplies, reactors and similar products for supply voltages up to 1100 V (CB Scheme)                                 | 50198090 001             | IEC61558-1:2005 2nd Edition + A1:2009   |
| Safety of power transformers, power supplies, reactors and similar products for supply voltages up to 1100 V   |                          | EN61558-1:2005 + A1:2009  |
| Safety of power transformers, power supplies, reactors and similar products for supply voltages up to 1100 V Part 2: Particular requirements (CB Scheme) | 50198090 001             | IEC61558-2-16:2009 1st Edition + A1:2013  |
| Safety of power transformers, power supplies, reactors and similar products for supply voltages up to 1100 V Part 2: Particular requirements             |                          | EN61558-2-16:2009 + A1:2013   |
| Safety requirements for power electronic converter systems and equipment - Part 1: General (CB Scheme)   | CN21R4QC001              | IEC62477-1:2012 + A1:2016, 1st Edition  |
| Safety requirements for power electronic converter systems and equipment - Part 1: General (LVD)   |                          | EN62477-1:2012 + A11:2014 + A1:2017   |
| EAC  | RU-AT.03.67361           | TP TC 004/2011  |
| RoHS2  |                          | RoHS-2011/65/EU + AM-2015/863   |

| EMC Compliance  | Condition               | Standard / Criterion        |
|---|-------------------------|-----------------------------|
| Low voltage power supplies, d.c. output Part 3: Electromagnetic compatibility (EMC)                                 |                         | IEC/EN61204-3:2018, Class B |
| Electromagnetic compatibility of multimedia equipment - Emission requirements                                       | without external filter | EN55032:2015, Class B       |
| Electromagnetic compatibility of household appliances, electric tools and similar apparatus - Emission Requirements |                         | EN55014-1:2006 + A2:2011    |
| Information technology equipment - Immunity characters - Limits and methods of measurement                          |                         | EN55024:2010 + A1:2015      |
| Electromagnetic compatibility of household appliances, electric tools and similar apparatus - Immunity Requirements |                         | EN55014-2:2015              |

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20W ◊ Input: 100V-240(277)VAC

**SAFETY & CERTIFICATIONS (COVERING ALL VERSIONS EXCEPT "/NE/W" )**

| EMC Compliance  | Condition  | Standard / Criterion  |
|---|--|---|
| ESD Electrostatic discharge immunity test   | Air $\pm 8\text{kV}$ , Contact $\pm 4\text{kV}$  | EN61000-4-2:2009, Criteria B  |
| Radiated, radio-frequency, electromagnetic field immunity test  | 80MHz - 6GHz: 10V/m<br>1.4GHz - 2GHz: 3V/m<br>2.0GHz - 2.7GHz: 1V/m  | EN61000-4-3:2006 + A1:2008, Criteria A  |
| Fast Transient and Burst Immunity   | AC Port: $\pm 2.0\text{kV}$<br>DC Port: $\pm 2.0\text{kV}$   | EN61000-4-4:2012, Criteria B  |
| Surge Immunity  | AC Port: L-N $\pm 1.0\text{kV}$<br>DC Port: $\pm 0.5\text{kV}$   | EN61000-4-5:2014 + A1:2017, Criteria B  |
| Immunity to conducted disturbances, induced by radio-frequency fields   | AC Port: 10V<br>DC Port: 10V   | EN61000-4-6:2014, Criteria A  |
| Power Magnetic Field Immunity   | 50Hz, 30A/m  | EN61000-4-8:2010, Criteria A  |
| Voltage Dips and Interruptions  | Voltage Dips 20%<br>Voltage Dips 30%<br>Voltage Dips 60%<br>Voltage Dips 100%<br>Voltage Interruptions > 95% | EN61000-4-11:2004 + A1:2017, Criteria C<br>EN61000-4-11:2004 + A1:2017, Criteria C<br>EN61000-4-11:2004 + A1:2017, Criteria C<br>EN61000-4-11:2004 + A1:2017, Criteria B<br>EN61000-4-11:2004 + A1:2017, Criteria C |
| Limits of Voltage Fluctuations & Flicker  |  | EN61000-3-3:2013  |
| Limitations on the amount of electromagnetic interference allowed from digital and electronic devices   |  | FCC 47 CFR Part 15 Subpart B, Class B   |
| American National Standard for Methods of Measurement of Radio-Noise Emissions from Low-Voltage Electrical and Electronic Equipment in the Range of 9 kHz to 40 GHz |  | ANSI C63.4-2014, Class B  |

**SAFETY & CERTIFICATIONS (COVERING "/NE/W" ONLY)**

| Certificate Type (Safety)  | Report Number      | Standard                                 |
|--|--------------------|--|
| Audio/Video, information and communication technology equipment - Part1: Safety requirements 3rd Edition                                     | E491408-A6034-UL   | UL62368-1:2019 3rd Edition               |
|  |                    | CAN/CSA-C22.2 No. 62368-1-19 3rd Edition |
| Audio/Video, information and communication technology equipment - Part1: Safety requirements 3rd Edition                                     | 240408022          | IEC62368-1:2018 3rd Edition              |
|  |                    | EN IEC 62368-1:2020+A11:2020             |
| Audio/Video, information and communication technology equipment - Part1: Safety requirements 3rd Edition                                     | 085-240223001-000  | IEC62368-1:2018 3rd Edition              |
|  |                    | EN IEC 62368-1:2020+A11:2020             |
| Audio/Video, information and communication technology equipment - Part1: Safety requirements 3rd Edition                                     | 085-240223401-000  | IEC62368-1:2018 3rd Edition              |
|  |                    | EN IEC 62368-1:2020+A11:2020             |
| Household and similar electrical appliances – Safety – Part 1: General requirements  | 64.110.24.02233.01 | IEC60335-1:2010 + C1:2016 5th Edition    |
|  |                    | EN60335-1:2012 + A15:2021                |
| Measurement methods for electromagnetic fields of household appliances and similar apparatus with regard to human exposure                   | 64.110.24.02233.01 | EN62233:2008                             |
| Safety of power transformers, power supplies, reactors and similar products for supply voltages up to 1100 V 3rd Edition                     | 085-240223101-000  | IEC61558-1:2017 3rd Edition              |
|  |                    | EN IEC 61558-1:2019                      |
| Safety of power transformers, power supplies, reactors and similar products for supply voltages up to 1100 V Part 2: Particular requirements |                    | IEC61558-2-16:2009+A1:2013 1st Edition   |
|  |                    | EN61558-2-16:2009+A1:2013                |
| Lamp controlgear Part 1: General and safety requirements   | 085-240223201-000  | IEC61347-1:2015+A1:2017 3rd Edition      |
|  |                    | EN61347-1:2015+A1:2021                   |
| Lamp controlgear Part 2-13: Particular requirements for d.c. or a.c. supplied electronic controlgear for LED modules                         |                    | IEC61347-2-13:2014+A1:2016 2nd Edition   |
|  |                    | EN61347-2-13:2014+A1:2017                |

# RAC20-K Series ◊ AC/DC Power Supply

## 20W ◊ Input: 100V-240(277)VAC

### SAFETY & CERTIFICATIONS (COVERING "/NE/W" ONLY)

| EMC Compliance according to EN IEC61204-3   | Condition  | Standard / Criterion  |
|---|--|---|
| Low voltage power supplies, d.c. output Part 3: Electromagnetic compatibility (EMC) |  | EN IEC 61204-3:2018   |
| ESD Electrostatic discharge immunity test   | Air: $\pm 2, 4, 8\text{kV}$<br>Contact: $\pm 4\text{kV}, \pm 6\text{kV}$ | IEC61000-4-2:2008, Criteria A<br>EN61000-4-2:2009, Criteria A |
| Radiated, radio-frequency, electromagnetic field immunity test                      | 10V/m (80-1000MHz),<br>3V/m (1400-2000MHz),<br>1V/m (2000-2700MHz)       | IEC/EN61000-4-3:2006 + A2:2010<br>Criteria A                  |
| Fast Transient and Burst Immunity   | L, N, L-N $\pm 2\text{kV}$ for 24Vout                                    | IEC/EN61000-4-4:2012, Criteria A                              |
|   | L, N, L-N $\pm 2\text{kV}$ for 12Vout                                    | IEC/EN61000-4-4:2012, Criteria B                              |
|   | L, N, L-N $\pm 4\text{kV}$ for all versions                              |   |
| Surge Immunity  | L-N: 0.5, 1kV; for all versions  | IEC/EN61000-4-5:2014 + A1:2017, Criteria A                    |
|   | L-PE, N-PE: 1, 2kV; for all versions                                     | IEC/EN61000-4-5:2014 + A1:2017, Criteria A                    |
| Immunity to conducted disturbances, induced by radio-frequency fields               | 10Vrms (0.15-80MHz)  | IEC61000-4-6:2013, Criteria A<br>EN61000-4-6:2014, Criteria A |
| Power Magnetic Field Immunity   | 30A/m  | IEC61000-4-8:2009 / EN61000-4-8:2010                          |
| Voltage Dips and Interruptions  | Dips: 100% (0.5P, 1.0P),<br>60%, 30%, 20%                                | IEC/EN61000-4-11:2004+A1:2017, Criteria A                     |
|   | Interruption: 100%   | IEC/EN61000-4-11:2004+A1:2017, Criteria B                     |
| Limits of Voltage Fluctuations & Flicker  |  | EN61000-3-3:2013+A1:2019                                      |
| EMC Compliance according to EN55032   | Condition  | Standard / Criterion  |
| Electromagnetic compatibility of multimedia equipment – Emission Requirements       | floating and earth referenced output                                     | EN55032:2015+A11:2020   |

### DIMENSION & PHYSICAL CHARACTERISTICS

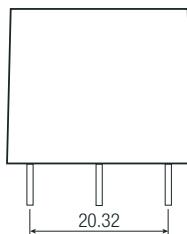
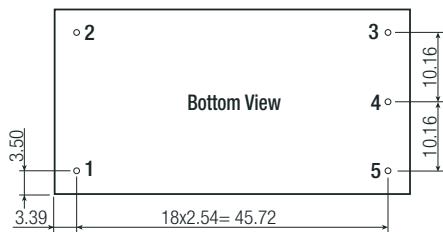
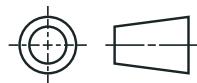
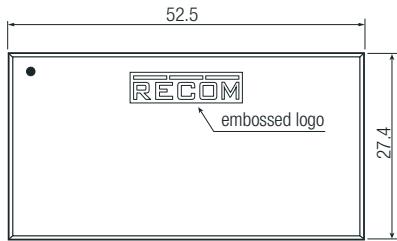
| Parameter         | Type                       | Value  |
|-------------------|----------------------------|--|
| Materials         | case/baseplate             | black plastic, (UL94 V-0)                    |
|                   | potting                    | silicone, (UL94 V-0)                         |
|                   | PCB                        | FR4, (UL94 V-0)                              |
| Dimension (LxWxH) | all models                 | 52.5 x 27.4 x 23.0mm<br>2.0 x 1.0 x 0.9 inch |
|                   | THT versions               | 60.0g typ.<br>0.13 lbs                       |
| Weight            | wired and "/NE/W" versions | 65.0g typ.<br>0.14 lbs                       |

# RAC20-K Series ◊ AC/DC Power Supply

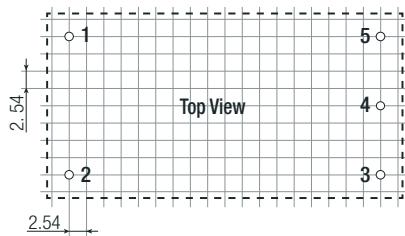
## 20W ◊ Input: 100V-240(277)VAC

### DIMENSION & PHYSICAL CHARACTERISTICS

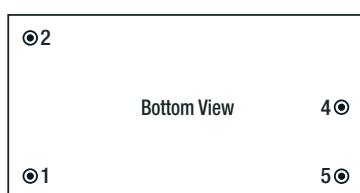
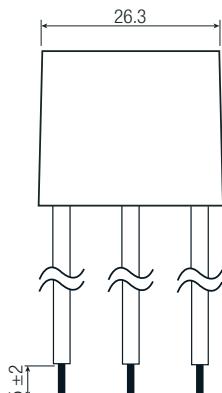
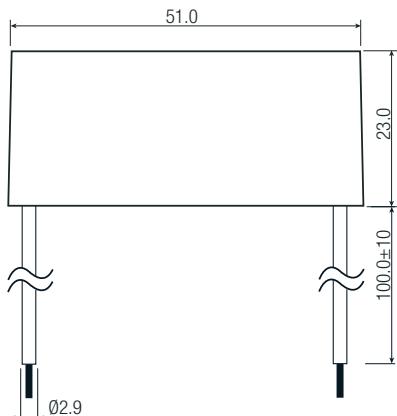
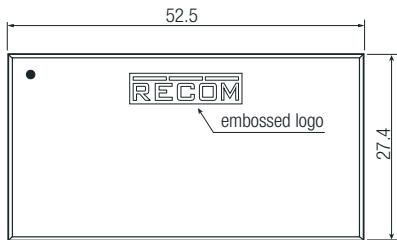
#### Dimension Drawing THT Version(mm)



Recommended Footprint Details



#### Dimension Drawing wired Versions (mm)



#### Wire information

| # | Function   | Wire color | Type    | AWG |
|---|------------|------------|---------|-----|
| 1 | VAC in (N) | blue       | UL-1015 | 18  |
| 2 | VAC in (L) | brown      | UL-1015 | 18  |
| 4 | -Vout      | black      | UL-1015 | 18  |
| 5 | +Vout      | red        | UL-1015 | 18  |

Tolerance: xx.x= ±0.5mm  
xx.xx= ±0.25mm

**RAC20-K Series ◊ AC/DC Power Supply**

20W ◊ Input: 100V-240(277)VAC

**PACKAGING INFORMATION**

| Parameter                   | Type             |      | Value                  |
|-----------------------------|------------------|------|------------------------|
| Packaging Dimension (LxWxH) | THT versions     | tube | 490.0 x 56.0 x 40.0mm  |
|                             | Wired versions   | tray | 488.0 x 202.0 x 47.0mm |
|                             | "/NE/W" versions | tray | 468.0 x 198.0 x 46.0mm |
| Packaging Quantity          | THT versions     |      | 15pcs                  |
|                             | Wired versions   |      | 20pcs                  |
|                             | "/NE/W" versions |      | 20pcs                  |
| Storage Temperature Range   |                  |      | -40°C to +85°C         |
| Storage Humidity            | non-condensing   |      | 20% to 90% RH max.     |

The product information and specifications may be subject to changes even without prior written notice. The product has been designed for various applications; its suitability lies in the responsibility of each customer. The products are not authorized for use in safety-critical applications without RECOM's explicit written consent. A safety-critical application is an application where a failure may reasonably be expected to endanger or cause loss of life, inflict bodily harm or damage property. The applicant shall indemnify and hold harmless RECOM, its affiliated companies and its representatives against any damage claims in connection with the unauthorized use of RECOM products in such safety-critical applications.