

**RAC20NE-K/277 and /OF**

RAC20NE-K, open frame or encapsulated solder mount built in power supplies are optimized for the requirements of new energy applications such as energy management, monitoring or actuator operation. To support high temperature requirements the new /HT Version works in operating temperatures up to 85°C without derating requirements and supports peak power of up to 36 watts. These compact AC/DC modules meet increased requirements in terms of ambient temperatures, high immunity levels against transients, adopted insulation barriers, EMC interference freedom with secondary ground connection and low power loss in full load operation as well as in standby and sleep mode. For the supply of universal input voltages of 100 to 277 VAC, the modules are available in various versions according to worldwide industrial, household and safety transformer standards at operating altitudes of up to 5000 m or up to 3000 m under OVC III approved. High effective power density and industry standard P12 pinning on a 1" x 2" (/HT: 1.5" x 2") footprint fits in space critical cubature.

**Unique selling proposition:**

23W boost power or alternatively 20W continuous output with CV/CC constant current limitation // up to 36W peak power and full load without derating up to 85°C operating temperature from the "/HT-Variant" // OVC III rating up to 3000m operating altitude and 5000m under OVC II // increased surge immunity 2kVAC: L-N & 4kV against FE earth // integrated EN55032 class "B" filtering with grounded and floating loads as well

**Target customer:**

new energy // IoT // industrial automation // machinery //

**Target applications examples:**

new energy monitoring and measurement // actuator control systems // energy management, internal auxiliary power coverage // EV Chargers // Meters

**Main features:**

100-277 AC input ratings // high power ratings at increased ambient operating temperatures // high efficiency from stand by mode to full load // integrated EMI filter for PELV or grounded connections // enhanced surge immunity // 5000m operating altitude (OVC II) // OVC III over voltage category up to 5000m altitude// boost power enabled hiccup mode over current protection or optional CV/CC regulation with constant current limitation // household certified isolating isolation barriers //

**Global sales release date:**

**30th July 2025**

**Web release date:**

18th June 2025

**Available from sample stock:**

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**RACM30-K /277 AC/DC  
modules extended by /36;  
/48; /54 models**


The encapsulated models of the RACM30-K/277 AC/DC series provide a leading thermally effective Power yield of 9.2 Watts per inch<sup>3</sup> at 60°C still air for continuous loads of 30 Watts plus additional peak capability up to 36W. With a wide range of available output voltages from 5 to 54 VDC, these modules can directly power control circuits, motors, relays, batteries and Power over Ethernet injection (PoE+) circuits according to the IEEE 802.3at standard. The open card derivates with barrier connector strips operate at slightly reduced derating slew rates. All items operate in a temperature range of -40° to 90°C in compliance with safety standards of medical MOPP, household-, industrial, and measurement markets. Safety reports rate the series as LPS limited power source and OVCIII for an operating altitude of up to 5000m. A comfortable margin to EMI Class B limits, even with outputs connected to the ground, eases system implementation for quick time-to-market without additional external circuitry such as fuses or filters. For designers, maximum flexibility for these encapsulated, solder-mountable modules is pin-to-pin compatible with the well-established series RAC20-K. Mechanical derivates include potted modules with wires open card modules or a panel mount option with spring-clamp connectors which is convertible to DIN-Rail mounting via available RECOM Clip accessory.

**Unique selling proposition:**

Ultra-compact size // very high efficiency over the entire load range // Over Voltage Category III rating up to 5000m operating altitude // certified operating temperature range: -40°C to +90°C // sufficient margin to EMC class "B" limits even with earth referenced output connections // thermally effective Power yield of the encapsulated variants is 9.2 Watt per inch<sup>3</sup> at 60°C still air // Outputs from 5V up to 54VDC

**Target customer:**

home automation // factory automation // process control and measurement // Smart Grid // Metering // IoT applications // medical home care // professional clinical use // lifestyle applications // Industry 4.0 // Smart buildings

**Main features:**

Wide input range 85-277VAC // Full load operating temperature up to 60°C // 36 Watt peak power // printmodules of 1.6" x 2" footprint // pin compatibility to RAC10-K and RAC20-K [P12] // single and dual outputs // open card modules of 1.5"x3" footprint with barrier strip terminals // medical 2MOPP and household and industrial safety certifications

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