## CPC COOPERATIVE PATENT CLASSIFICATION

Y GENERAL TAGGING OF NEW TECHNOLOGICAL DEVELOPMENTS; GENERAL TAGGING OF CROSS-SECTIONAL TECHNOLOGIES SPANNING OVER SEVERAL SECTIONS OF THE IPC; TECHNICAL SUBJECTS COVERED BY FORMER USPC CROSS-REFERENCE ART COLLECTIONS [XRACs] AND DIGESTS (NOTES omitted)

## Y02 TECHNOLOGIES OR APPLICATIONS FOR MITIGATION OR ADAPTATION AGAINST CLIMATE CHANGE

(NOTES omitted)

## Y02B CLIMATE CHANGE MITIGATION TECHNOLOGIES RELATED TO BUILDINGS, e.g. HOUSING, HOUSE APPLIANCES OR RELATED END-USER APPLICATIONS

10/00	Integration of renewable energy sources in buildings	50/00	Energy efficient technologies in elevators, escalators and moving walkways, e.g. energy
10/10	• Photovoltaic [PV]		saving or recuperation technologies
10/20	Solar thermal	70/00	Technologies for an efficient and user side electric
10/30	• Wind power	70/00	Technologies for an efficient end-user side electric power management and consumption
10/40	Geothermal heat-pumps	70/10	Technologies improving the efficiency by using
10/50	Hydropower in dwellings	70/10	switched-mode power supplies [SMPS], i.e.
10/70	<ul> <li>Hybrid systems, e.g. uninterruptible or back-up power supplies integrating renewable energies</li> </ul>		efficient power electronics conversion e.g. power factor correction or reduction of losses in power supplies or efficient standby modes  Systems integrating technologies related to power network operation and communication or information technologies for improving the carbon footprint of the management of residential or tertiary loads, i.e. smart grids as climate
20/00	Energy efficient lighting technologies, e.g. halogen lamps or gas discharge lamps	70/30	
20/30	<ul> <li>Semiconductor lamps, e.g. solid state lamps [SSL] light emitting diodes [LED] or organic LED [OLED]</li> </ul>		
20/40	<ul> <li>Control techniques providing energy savings, e.g. smart controller or presence detection</li> </ul>		change mitigation technology in the buildings sector, including also the last stages of power
20/72	• in street lighting		distribution and the control, monitoring or operating
30/00	Energy efficient heating, ventilation or air conditioning [HVAC]	70/3225	management systems at local level  Demand response systems, e.g. load shedding,
30/12	<ul> <li>Hot water central heating systems using heat pumps</li> </ul>		peak shaving
30/13	<ul> <li>Hot air central heating systems using heat pumps</li> </ul>	70/34	Smart metering supporting the carbon neutral
30/17	District heating		operation of end-user applications in buildings
30/18	<ul> <li>Domestic hot-water supply systems using recuperated or waste heat</li> </ul>	80/00	Architectural or constructional elements improving the thermal performance of buildings
30/52	. Heat recovery pumps, i.e. heat pump based systems	80/10	<ul> <li>Insulation, e.g. vacuum or aerogel insulation</li> </ul>
	or units able to transfer the thermal energy from	80/22	<ul> <li>Glazing, e.g. vaccum glazing</li> </ul>
	one area of the premises or part of the facilities to a different one, improving the overall efficiency	80/32	. Roof garden systems
30/54	• Free-cooling systems	90/00	Enabling technologies or technologies with
30/56	. Heat recovery units		a potential or indirect contribution to GHG
30/62	<ul> <li>Absorption based systems</li> </ul>	00/10	emissions mitigation
30/625	• combined with heat or power generation [CHP], e.g. trigeneration	90/10 90/20	<ul> <li>Applications of fuel cells in buildings</li> <li>Smart grids as enabling technology in buildings</li> </ul>
30/70	• Efficient control or regulation technologies, e.g. for control of refrigerant flow, motor or heating		sector (smart grids supporting the management or operation of end-user stationary applications in
30/90	• Passive houses; Double facade technology		general, or like technologies with no associated climate change mitigation effect <u>Y04S 20/00</u> )
40/00	Technologies aiming at improving the efficiency of home appliances, e.g. induction cooking or efficient technologies for refrigerators, freezers or dish washers		
40/18	<ul> <li>using renewables, e.g. solar cooking stoves, furnaces or solar heating</li> </ul>		

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