Symbol	Typ	Titel
H	**Sektion**	**SECTION H — ELECTRICITY**
H02	**Klasse**	**GENERATION, CONVERSION, OR DISTRIBUTION OF ELECTRIC POWER**
H02M	**Unterklasse**	**APPARATUS FOR CONVERSION BETWEEN AC AND AC, BETWEEN AC AND DC, OR BETWEEN DC AND DC, AND FOR USE WITH MAINS OR SIMILAR POWER SUPPLY SYSTEMS ; CONVERSION OF DC OR AC INPUT POWER INTO SURGE OUTPUT POWER; CONTROL OR REGULATION THEREOF (conversion of current or voltage specially adapted for use in electronic time-pieces with no moving parts G04G 19/02; systems for regulating electric or magnetic variables in general, e.g. using transformers, reactors or choke coils, combination of such systems with static converters G05F; for digital computers G06F 1/00; transformers H01F; connection or control of one converter with regard to conjoint operation with a similar or other source of supply H02J; dynamo-electric converters H02K 47/00; controlling transformers, reactors or choke coils, control or regulation of electric motors, generators or dynamo-electric converters H02P; pulse generators H03K) [4, 5]**
H02M 1/00	**Hauptgruppe**	**Details of apparatus for conversion**
H02M 1/02	1-Punkt Untergruppe	. Circuits specially adapted for the generation of grid-control or igniter-control voltages for discharge tubes incorporated in static converters
H02M 1/04	2-Punkt Untergruppe	. . for tubes with grid control
H02M 1/06	1-Punkt Untergruppe	. Circuits specially adapted for rendering non-conductive gas discharge tubes or equivalent semiconductor devices, e.g. thyratrons, thyristors [2]
H02M 1/08	1-Punkt Untergruppe	. Circuits specially adapted for the generation of control voltages for semiconductor devices incorporated in static converters
H02M 1/084	2-Punkt Untergruppe	. . using a control circuit common to several phases of a multi-phase system [4]
H02M 1/088	2-Punkt Untergruppe	. . for the simultaneous control of series or parallel connected semiconductor devices [4]
H02M 1/092	3-Punkt Untergruppe	. . . the control signals being transmitted optically [4]
H02M 1/096	3-Punkt Untergruppe	. . . the power supply of the control circuit being connected in parallel to the main switching element (H02M 1/092 takes precedence) [4]
H02M 1/10	1-Punkt Untergruppe	. Arrangements incorporating converting means for enabling loads to be operated at will from different kinds of power supplies, e.g. from ac or dc
H02M 1/12	1-Punkt Untergruppe	. Arrangements for reducing harmonics from ac input or output
H02M 1/14	1-Punkt Untergruppe	. Arrangements for reducing ripples from dc input or output
H02M 1/15	2-Punkt Untergruppe	. . using active elements [4]
H02M 1/16	1-Punkt Untergruppe	. Means for providing current step on switching, e.g. with saturable reactor
H02M 1/20	1-Punkt Untergruppe	. Contact mechanisms of dynamic converters
H02M 1/22	2-Punkt Untergruppe	. . incorporating collectors and brushes
H02M 1/24	2-Punkt Untergruppe	. . incorporating rolling or tumbling contacts
H02M 1/26	2-Punkt Untergruppe	. . incorporating cam-operated contacts
H02M 1/28	2-Punkt Untergruppe	. . incorporating electromagnetically-operated vibrating contacts
H02M 1/30	2-Punkt Untergruppe	. . incorporating liquid contacts
H02M 3/00	**Hauptgruppe**	**Conversion of dc power input into dc power output**

Symbol	Typ	Titel
H02M 3/02	1-Punkt Untergruppe	. without intermediate conversion into ac
H02M 3/04	2-Punkt Untergruppe	. . by static converters
H02M 3/06	3-Punkt Untergruppe	. . . using resistors or capacitors, e.g. potential divider
H02M 3/07	4-Punkt Untergruppe	. . . . using capacitors charged and discharged alternately by semiconductor devices with control electrode [4]
H02M 3/08	3-Punkt Untergruppe	. . . using discharge tubes without control electrode or semiconductor devices without control electrode
H02M 3/10	3-Punkt Untergruppe	. . . using discharge tubes with control electrode or semiconductor devices with control electrode (H02M 3/07 takes precedence) [4]
H02M 3/125	4-Punkt Untergruppe	. . . . using devices of a thyratron or thyristor type requiring extinguishing means [2]
H02M 3/13	5-Punkt Untergruppe	. . . . . using discharge tubes only [2]
H02M 3/135	5-Punkt Untergruppe	. . . . . using semiconductor devices only [2]
H02M 3/137	6-Punkt Untergruppe	. . . . . with automatic control of output voltage or current, e.g. switching regulators [4]
H02M 3/139	7-Punkt Untergruppe	. . . . . with digital control [4]
H02M 3/142	7-Punkt Untergruppe	. . . . . including plural semiconductor devices as final control devices for a single load [4]
H02M 3/145	4-Punkt Untergruppe	. . . . using devices of a triode or transistor type requiring continuous application of a control signal [2]
H02M 3/15	5-Punkt Untergruppe	. . . . . using discharge tubes only [2]
H02M 3/155	5-Punkt Untergruppe	. . . . . using semiconductor devices only [2]
H02M 3/156	6-Punkt Untergruppe	. . . . . with automatic control of output voltage or current, e.g. switching regulators [4]
H02M 3/157	7-Punkt Untergruppe	. . . . . with digital control [4]
H02M 3/158	7-Punkt Untergruppe	. . . . . including plural semiconductor devices as final control devices for a single load [4]
H02M 3/16	2-Punkt Untergruppe	. . by dynamic converters
H02M 3/18	3-Punkt Untergruppe	. . . using capacitors or batteries which are alternately charged and discharged, e.g. charged in parallel and discharged in series
H02M 3/20	2-Punkt Untergruppe	. . by combination of static with dynamic converters; by combination of dynamo-electric with other dynamic or static converters
H02M 3/22	1-Punkt Untergruppe	. with intermediate conversion into ac
H02M 3/24	2-Punkt Untergruppe	. . by static converters
H02M 3/26	3-Punkt Untergruppe	. . . using discharge tubes without control electrode or semiconductor devices without control electrode to produce the intermediate ac
H02M 3/28	3-Punkt Untergruppe	. . . using discharge tubes with control electrode or semiconductor devices with control electrode to produce the intermediate ac
H02M 3/305	4-Punkt Untergruppe	. . . . using devices of a thyratron or thyristor type requiring extinguishing means [2]
H02M 3/31	5-Punkt Untergruppe	. . . . . using discharge tubes only [2]
H02M 3/315	5-Punkt Untergruppe	. . . . . using semiconductor devices only [2]
H02M 3/325	4-Punkt Untergruppe	. . . . using devices of a triode or a transistor type requiring continuous application of a control signal [2]

Symbol	Typ	Titel
H02M 3/33	5-Punkt Untergruppe	. . . . . using discharge tubes only [2]
H02M 3/335	5-Punkt Untergruppe	. . . . . using semiconductor devices only [2]
H02M 3/337	6-Punkt Untergruppe	. . . . . in push-pull configuration [4]
H02M 3/338	6-Punkt Untergruppe	. . . . . in a self-oscillating arrangement (H02M 3/337 takes precedence) [4]
H02M 3/34	2-Punkt Untergruppe	. . by dynamic converters
H02M 3/36	3-Punkt Untergruppe	. . . using mechanical parts to select progressively or to vary continuously the input potential
H02M 3/38	3-Punkt Untergruppe	. . . using mechanical contact-making and -breaking parts to interrupt a single potential
H02M 3/40	4-Punkt Untergruppe	. . . . wherein the parts are rotating and collectors co-operate with brushes or rollers
H02M 3/42	4-Punkt Untergruppe	. . . . with electromagnetically-operated vibrating contacts, e.g. chopper (self-interrupters in general H01H 51/34)
H02M 3/44	2-Punkt Untergruppe	. . by combination of static with dynamic converters; by combination of dynamo-electric with other dynamic or static converters
H02M 5/00	**Hauptgruppe**	**Conversion of ac power input into ac power output, e.g. for change of voltage, for change of frequency, for change of number of phases**
H02M 5/02	1-Punkt Untergruppe	. without intermediate conversion into dc
H02M 5/04	2-Punkt Untergruppe	. . by static converters (controlling transformers, reactors or choke coils, e.g. by tap changing, H02P 13/00) [4]
H02M 5/06	3-Punkt Untergruppe	. . . using impedances
H02M 5/08	4-Punkt Untergruppe	. . . . using capacitors only
H02M 5/10	3-Punkt Untergruppe	. . . using transformers
H02M 5/12	4-Punkt Untergruppe	. . . . for conversion of voltage or current amplitude only
H02M 5/14	4-Punkt Untergruppe	. . . . for conversion between circuits of different phase number
H02M 5/16	4-Punkt Untergruppe	. . . . for conversion of frequency
H02M 5/18	4-Punkt Untergruppe	. . . . for conversion of waveform
H02M 5/20	3-Punkt Untergruppe	. . . using discharge tubes without control electrode or semiconductor devices without control electrode
H02M 5/22	3-Punkt Untergruppe	. . . using discharge tubes with control electrode or semiconductor devices with control electrode
H02M 5/25	4-Punkt Untergruppe	. . . . using devices of a thyratron or thyristor type requiring extinguishing means (H02M 5/27 takes precedence) [2]
H02M 5/253	5-Punkt Untergruppe	. . . . . using discharge tubes only [2]
H02M 5/257	5-Punkt Untergruppe	. . . . . using semiconductor devices only [2]
H02M 5/27	5-Punkt Untergruppe	. . . . . for conversion of frequency [2]
H02M 5/275	4-Punkt Untergruppe	. . . . using devices of a triode or transistor type requiring continuous application of a control signal (H02M 5/297 takes precedence) [2]
H02M 5/29	5-Punkt Untergruppe	. . . . . using discharge tubes only [2]
H02M 5/293	5-Punkt Untergruppe	. . . . . using semiconductor devices only [2]

Symbol	Typ	Titel
H02M 5/297	5-Punkt Untergruppe	. . . . . for conversion of frequency [2]
H02M 5/32	2-Punkt Untergruppe	. . by dynamic converters
H02M 5/34	3-Punkt Untergruppe	. . . using mechanical contact-making and -breaking parts
H02M 5/36	4-Punkt Untergruppe	. . . . wherein the parts are rotating and collectors co-operate with brushes or rollers
H02M 5/38	2-Punkt Untergruppe	. . by combination of static with dynamic converters; by combination of dynamo-electric with other dynamic or static converters
H02M 5/40	1-Punkt Untergruppe	. with intermediate conversion into dc
H02M 5/42	2-Punkt Untergruppe	. . by static converters
H02M 5/44	3-Punkt Untergruppe	. . . using discharge tubes or semiconductor devices to convert the intermediate dc into ac
H02M 5/443	4-Punkt Untergruppe	. . . . using devices of a thyratron or thyristor type requiring extinguishing means [2]
H02M 5/447	5-Punkt Untergruppe	. . . . . using discharge tubes only [2]
H02M 5/45	5-Punkt Untergruppe	. . . . . using semiconductor devices only [2]
H02M 5/451	6-Punkt Untergruppe	. . . . . with automatic control of output voltage or frequency [4]
H02M 5/452	6-Punkt Untergruppe	. . . . . with automatic control of output waveform [4]
H02M 5/453	4-Punkt Untergruppe	. . . . using devices of a triode or transistor type requiring continuous application of a control signal [2]
H02M 5/456	5-Punkt Untergruppe	. . . . . using discharge tubes only [2]
H02M 5/458	5-Punkt Untergruppe	. . . . . using semiconductor devices only [2]
H02M 5/46	2-Punkt Untergruppe	. . by dynamic converters
H02M 5/48	2-Punkt Untergruppe	. . by combination of static with dynamic converters; by combination of dynamo-electric with other dynamic or static converters
H02M 7/00	**Hauptgruppe**	**Conversion of ac power input into dc power output; Conversion of dc power input into ac power output**
H02M 7/02	1-Punkt Untergruppe	. Conversion of ac power input into dc power output without possibility of reversal
H02M 7/04	2-Punkt Untergruppe	. . by static converters
H02M 7/06	3-Punkt Untergruppe	. . . using discharge tubes without control electrode or semiconductor devices without control electrode
H02M 7/08	4-Punkt Untergruppe	. . . . arranged for operation in parallel
H02M 7/10	4-Punkt Untergruppe	. . . . arranged for operation in series, e.g. for multiplication of voltage
H02M 7/12	3-Punkt Untergruppe	. . . using discharge tubes with control electrode or semiconductor devices with control electrode
H02M 7/145	4-Punkt Untergruppe	. . . . using devices of a thyratron or thyristor type requiring extinguishing means [2, 4]
H02M 7/15	5-Punkt Untergruppe	. . . . . using discharge tubes only [2]
H02M 7/155	5-Punkt Untergruppe	. . . . . using semiconductor devices only [2]
H02M 7/162	6-Punkt Untergruppe	. . . . . in a bridge configuration [4]
H02M 7/17	6-Punkt Untergruppe	. . . . . arranged for operation in parallel [2, 4]
H02M 7/19	6-Punkt Untergruppe	. . . . . arranged for operation in series, e.g. for voltage multiplication [2, 4]

Symbol	Typ	Titel
H02M 7/21	4-Punkt Untergruppe	. . . . using devices of a triode or transistor type requiring continuous application of a control signal [2, 4]
H02M 7/213	5-Punkt Untergruppe	. . . . . using discharge tubes only [2]
H02M 7/217	5-Punkt Untergruppe	. . . . . using semiconductor devices only [2]
H02M 7/219	6-Punkt Untergruppe	. . . . . in a bridge configuration [4]
H02M 7/23	6-Punkt Untergruppe	. . . . . arranged for operation in parallel [2, 4]
H02M 7/25	6-Punkt Untergruppe	. . . . . arranged for operation in series, e.g. for multiplication of voltage [2, 4]
H02M 7/26	3-Punkt Untergruppe	. . . using open-spark devices, e.g. Marx rectifier
H02M 7/28	3-Punkt Untergruppe	. . . using electrolytic rectifiers
H02M 7/30	2-Punkt Untergruppe	. . by dynamic converters
H02M 7/32	3-Punkt Untergruppe	. . . using mechanical contact-making and -breaking parts
H02M 7/34	4-Punkt Untergruppe	. . . . wherein the parts are rotating and collectors co-operate with brushes or rollers
H02M 7/36	4-Punkt Untergruppe	. . . . with electromagnetically-operated vibrating contacts, e.g. chopper (self-interrupters in general H01H 51/34)
H02M 7/38	3-Punkt Untergruppe	. . . using one or more sparking electrodes rotating over counterelectrodes
H02M 7/40	2-Punkt Untergruppe	. . by combination of static with dynamic converters; by combination of dynamo-electric with other dynamic or static converters
H02M 7/42	1-Punkt Untergruppe	. Conversion of dc power input into ac power output without possibility of reversal
H02M 7/44	2-Punkt Untergruppe	. . by static converters
H02M 7/46	3-Punkt Untergruppe	. . . using discharge tubes without control electrode or semiconductor devices without control electrode
H02M 7/48	3-Punkt Untergruppe	. . . using discharge tubes with control electrode or semiconductor devices with control electrode
H02M 7/505	4-Punkt Untergruppe	. . . . using devices of a thyratron or thyristor type requiring extinguishing means [2]
H02M 7/51	5-Punkt Untergruppe	. . . . . using discharge tubes only [2]
H02M 7/515	5-Punkt Untergruppe	. . . . . using semiconductor devices only [2]
H02M 7/517	6-Punkt Untergruppe	. . . . . with special starting equipment [4]
H02M 7/519	6-Punkt Untergruppe	. . . . . in a push-pull configuration (H02M 7/517 takes precedence) [4]
H02M 7/521	6-Punkt Untergruppe	. . . . . in a bridge configuration [4]
H02M 7/523	6-Punkt Untergruppe	. . . . . with LC-resonance circuit in the main circuit [4]
H02M 7/525	6-Punkt Untergruppe	. . . . . with automatic control of output waveform or frequency (H02M 7/517-H02M 7/523 take precedence) [4]
H02M 7/527	7-Punkt Untergruppe	. . . . . by pulse width modulation [4]
H02M 7/529	8-Punkt Untergruppe	. . . . . using digital control [4]
H02M 7/53	4-Punkt Untergruppe	. . . . using devices of a triode or transistor type requiring continuous application of a control signal [2]
H02M 7/533	5-Punkt Untergruppe	. . . . . using discharge tubes only [2]

Symbol	Typ	Titel
H02M 7/537	5-Punkt Untergruppe	. . . . . using semiconductor devices only [2]
H02M 7/5375	6-Punkt Untergruppe	. . . . . with special starting equipment [4]
H02M 7/538	6-Punkt Untergruppe	. . . . . in a push-pull configuration (H02M 7/5375 takes precedence) [4]
H02M 7/5383	6-Punkt Untergruppe	. . . . . in a self-oscillating arrangement (H02M 7/538 takes precedence) [4]
H02M 7/5387	6-Punkt Untergruppe	. . . . . in a bridge configuration [4]
H02M 7/539	6-Punkt Untergruppe	. . . . . with automatic control of output wave form or frequency (H02M 7/5375-H02M 7/5387 take precedence) [4]
H02M 7/5395	7-Punkt Untergruppe	. . . . . by pulse-width modulation [4]
H02M 7/54	2-Punkt Untergruppe	. . by dynamic converters
H02M 7/56	3-Punkt Untergruppe	. . . using mechanical parts to select progressively, or to vary continuously, the input potential
H02M 7/58	3-Punkt Untergruppe	. . . using mechanical contact-making and -breaking parts to interrupt a single potential
H02M 7/60	4-Punkt Untergruppe	. . . . wherein the parts are rotating and collectors co-operate with brushes or rollers
H02M 7/62	4-Punkt Untergruppe	. . . . with electromagnetically-operated vibrating contacts, e.g. chopper (self-interrupters in general H01H 51/34)
H02M 7/64	2-Punkt Untergruppe	. . by combination of static with dynamic converters; by combination of dynamo-electric with other dynamic or static converters
H02M 7/66	1-Punkt Untergruppe	. with possibility of reversal
H02M 7/68	2-Punkt Untergruppe	. . by static converters
H02M 7/70	3-Punkt Untergruppe	. . . using discharge tubes without control electrode or semiconductor devices without control electrode
H02M 7/72	3-Punkt Untergruppe	. . . using discharge tubes with control electrode or semiconductor devices with control electrode
H02M 7/75	4-Punkt Untergruppe	. . . . using devices of a thyratron or thyristor type requiring extinguishing means (H02M 7/77 takes precedence) [2]
H02M 7/753	5-Punkt Untergruppe	. . . . . using discharge tubes only [2]
H02M 7/757	5-Punkt Untergruppe	. . . . . using semiconductor devices only [2]
H02M 7/758	6-Punkt Untergruppe	. . . . . with automatic control of output waveform or frequency [4]
H02M 7/77	5-Punkt Untergruppe	. . . . . arranged for operation in parallel [2]
H02M 7/79	4-Punkt Untergruppe	. . . . using devices of a triode or transistor type requiring continuous application of a control signal (H02M 7/81 takes precedence) [2]
H02M 7/793	5-Punkt Untergruppe	. . . . . using discharge tubes only [2]
H02M 7/797	5-Punkt Untergruppe	. . . . . using semiconductor devices only [2]
H02M 7/81	5-Punkt Untergruppe	. . . . . arranged for operation in parallel [2]
H02M 7/82	3-Punkt Untergruppe	. . . using open-spark devices, e.g. Marx rectifier
H02M 7/84	3-Punkt Untergruppe	. . . using electrolytic rectifiers
H02M 7/86	2-Punkt Untergruppe	. . by dynamic converters

Symbol	Typ	Titel
H02M 7/88	3-Punkt Untergruppe	. . . using mechanical parts to select progressively or to vary continuously the input potential
H02M 7/90	3-Punkt Untergruppe	. . . using mechanical contact-making and -breaking parts to interrupt a single potential
H02M 7/92	4-Punkt Untergruppe	. . . . wherein the parts are rotating and collectors co-operate with brushes or rollers
H02M 7/94	4-Punkt Untergruppe	. . . . wherein the parts are operated by rotating cams or cam-like devices
H02M 7/95	4-Punkt Untergruppe	. . . . with electromagnetically-operated vibrating contacts, e.g. chopper (self-interrupters in general H01H 51/34)
H02M 7/96	4-Punkt Untergruppe	. . . . with moving liquid contacts
H02M 7/98	2-Punkt Untergruppe	. . by combination of static with dynamic converters; by combination of dynamo-electric with other dynamic or static converters
H02M 9/00	**Hauptgruppe**	**Conversion of dc or ac input power into surge output power [2]**
H02M 9/02	1-Punkt Untergruppe	. with dc input power [2]
H02M 9/04	2-Punkt Untergruppe	. . using capacitative stores [2]
H02M 9/06	1-Punkt Untergruppe	. with ac input power [2]
H02M 11/00	**Hauptgruppe**	**Power conversion systems not covered by the other groups of this subclass [4]**