

# Panasonic Electric Works Corp. of America

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## Standards Chart

### Mechanical Relays

Item	UL/C-UL (Recognized)		CSA (Certified)		VDE (Certified)		TV rating (UL/CSA)		TÜV (Certified)	
	File No.	Contact rating	File No.	Contact rating	File No.	Contact rating	File No.	Rating	File No.	Rating
SX (ASX)	E43149	0.5A 125V AC (10 <sup>5</sup> ) 0.3A 110V DC (3×10 <sup>4</sup> ) 1A 30V DC (10 <sup>5</sup> )	LR26550 etc.	0.5A 125V AC (10 <sup>5</sup> ) 0.3A 110V DC (3×10 <sup>4</sup> ) 1A 30V DC (10 <sup>5</sup> )	—	—	—	—	—	—
GN (AGN)	E43149	0.3A 125V AC (10 <sup>5</sup> ) 0.3A 110V DC (3×10 <sup>4</sup> ) 1A 30V DC (10 <sup>5</sup> )	LR26550 etc.	0.3A 125V AC (3×10 <sup>4</sup> ) 0.3A 110V DC (3×10 <sup>4</sup> ) 1A 30V DC (10 <sup>5</sup> )	—	—	—	—	—	—
GQ (AGQ)	E43149	0.3A 125V AC (10 <sup>5</sup> ) 0.3A 110V DC (3×10 <sup>4</sup> ) 1A 30V DC (10 <sup>5</sup> )	LR26550 etc.	0.3A 125V AC (10 <sup>5</sup> ) 0.3A 110V DC (3×10 <sup>4</sup> ) 1A 30V DC (10 <sup>5</sup> )	—	—	—	—	—	—
TX	E43149	0.5A 125V AC (10 <sup>5</sup> ) 0.3A 110V DC (10 <sup>5</sup> ) 2A 30V DC (10 <sup>5</sup> )	LR26550 etc.	0.5A 125V AC (10 <sup>5</sup> ) 0.3A 110V DC (10 <sup>5</sup> ) 2A 30V DC (10 <sup>5</sup> )	—	—	—	—	—	—
TX-D	E43149	0.5A 125V AC (10 <sup>5</sup> ) 0.3A 110V DC (10 <sup>5</sup> ) 2A 30V DC (10 <sup>5</sup> )	LR26550 etc.	0.5A 125V AC (10 <sup>5</sup> ) 0.3A 110V DC (10 <sup>5</sup> ) 2A 30V DC (10 <sup>5</sup> )	—	—	—	—	—	—
TX-S	E43149	0.5A 125V AC (10 <sup>5</sup> ) 0.3A 110V DC (3×10 <sup>4</sup> ) 1A 30V DC (10 <sup>5</sup> )	LR26550 etc.	0.5A 125V AC (10 <sup>5</sup> ) 0.3A 110V DC (3×10 <sup>4</sup> ) 1A 30V DC (10 <sup>5</sup> )	—	—	—	—	—	—
TQ	E43149	0.5A 125V AC (10 <sup>5</sup> ) 0.3A 110V DC (10 <sup>5</sup> ) 1A 30V DC (10 <sup>5</sup> )	LR26550 etc.	0.5A 125V AC (10 <sup>5</sup> ) 0.3A 110V DC (10 <sup>5</sup> ) 1A 30V DC (10 <sup>5</sup> )	—	—	—	—	—	—
TQ SMD	E43149	0.5A 125V AC (10 <sup>5</sup> ) 0.3A 110V DC (10 <sup>5</sup> ) 2A 30V DC (10 <sup>5</sup> )	LR26550 etc.	0.5A 125V AC (10 <sup>5</sup> ) 0.3A 110V DC (10 <sup>5</sup> ) 2A 30V DC (10 <sup>5</sup> )	—	—	—	—	—	—
TN	E43149	0.5A 125V AC (10 <sup>5</sup> ) 0.3A 110V DC (10 <sup>5</sup> ) 1A 30V DC (10 <sup>5</sup> )	LR26550 etc.	0.5A 125V AC (10 <sup>5</sup> ) 0.3A 110V DC (10 <sup>5</sup> ) 1A 30V DC (10 <sup>5</sup> )	—	—	—	—	—	—
TK	E43149	0.5A 125V AC (10 <sup>5</sup> ) 0.5A 110V DC (10 <sup>5</sup> ) 2A 30V DC (10 <sup>5</sup> )	LR26550 etc.	0.5A 125V AC (10 <sup>5</sup> ) 0.5A 110V DC (10 <sup>5</sup> ) 2A 30V DC (10 <sup>5</sup> )	—	—	—	—	—	—
HY	E43149	1A 30V DC (10 <sup>5</sup> )	LR26550 etc.	1A 30V DC (10 <sup>5</sup> )	—	—	—	—	—	—
DS	E43149 etc.	0.6A 125V AC (10 <sup>5</sup> ) 0.6A 110V DC (10 <sup>5</sup> ) 2A 30V DC (10 <sup>5</sup> )	LR26550 etc.	0.6A 125V AC (10 <sup>5</sup> ) 0.6A 110V DC (10 <sup>5</sup> ) 2A 30V DC (10 <sup>5</sup> )	—	—	—	—	—	—
DS-BT	E43149 etc.	0.6A 125V AC (10 <sup>5</sup> ) 0.6A 110V DC (10 <sup>5</sup> ) 2A 30V DC (10 <sup>5</sup> )	LR26550 etc.	0.6A 125V AC (10 <sup>5</sup> ) 0.6A 110V DC (10 <sup>5</sup> ) 2A 30V DC (10 <sup>5</sup> )	—	—	—	—	—	—
DS2Y	E43149 etc.	0.6A 125V AC (10 <sup>5</sup> ) 0.6A 110V DC (10 <sup>5</sup> ) 2A 30V DC (10 <sup>5</sup> )	LR26550 etc.	0.6A 125V AC (10 <sup>5</sup> ) 0.6A 110V DC (10 <sup>5</sup> ) 2A 30V DC (10 <sup>5</sup> )	—	—	—	—	—	—
PE (APE)	E43149	6A 277V AC	—	Certified by C-UL	122402VG	6A 250V to (cosφ=1.0) 1A 250V to (cosφ=0.4)	—	—	—	—
PA	E43149	3A 250V AC 3A 30V DC 5A 250V AC 3A 250V AC	LR26550 etc.	5A 250V AC 5A 30V DC 3A 250V AC 3A 30V DC	—	—	—	—	98 06 13461 148	IEL1131-2 Reinforced
PQ	E43028	5A 277V AC 1/6HP 277V AC 5A 30V DC 0.3A 110V DC	LR26550 etc.	5A 277V AC 1/6HP 277V AC 5A 30V DC 0.3A 110V DC	10063VG 92404VG	5A 250V to (cosφ=0.4) 5A 30V ■	—	—	92 10 1645 701	5A 250V to (cosφ=0.4) 5A 30V ■
NC	2c	E43028	5A 250V AC 1/10HP 125, 250V AC 5A 30V DC	LR26550 etc.	5A 250V AC 1/10HP 125, 250V AC 5A 30V DC	1004	5A 125V to (cosφ=1.0) 1A 125V to (cosφ=0.4) 5A 30V ■ (0ms)	—	—	—
	4c	E43028	5A 125V AC 4A 250V AC 1/10HP 125, 250V AC 5A 30V DC	LR26550 etc.	5A 125V AC 4A 250V AC 1/10HP 125, 250V AC 5A 30V DC	1004	5A 125V to (cosφ=1.0) 1A 125V to (cosφ=0.4) 5A 30V ■ (0ms)	—	—	—
NC Amber	2c	E43028	3A 250V AC 1/20HP 125, 250V AC 5A 30V DC	LR26550 etc.	3A 250V AC 1/20HP 125, 250V AC 5A 30V DC	1005	1A 125V to (cosφ=1.0) 0.5A 125V to (cosφ=0.4) 1A 30V ■ (0ms)	—	—	—
	4c	E43028	2A 250V AC 1/20HP 125, 250V AC 5A 30V DC	LR26550 etc.	2A 250V AC 1/20HP 125, 250V AC 5A 30V DC	1005	1A 125V to (cosφ=1.0) 0.5A 125V to (cosφ=0.4) 1A 30V ■ (0ms)	—	—	—

#### Notes

1. For UL/CSA recognized type s, add suffix "UL/CSA" (HA Relays, NL Relays)
2. Please inquire if you need the relay marked standards that are not marked normally.
3. ■ indicates the UL/C-UL recognition file number.

# Standards Chart

SEMKO (Certified)		FIMKO		SEV		BSI		Remarks	Standard marking
File No.	Contact rating	File No.	Contact rating	File No.	Contact rating	File No.	Rating		
—	—	—	—	—	—	BSI No. 8415 (Standard insulation)	—	Approved (10 <sup>5</sup> rating) (3×10 <sup>4</sup> rating for 0.3A 110V DC is) BSI No. 8415 (Standard insulation)	UL/CSA
—	—	—	—	—	—	BSI No. 8299 (Standard insulation)	—	10 <sup>5</sup> rating (3×10 <sup>4</sup> rating for 0.3A 110V DC and 0.3A 125V AC (CSA only) ) BSI No. 8299 (Standard insulation)	UL/CSA
—	—	—	—	—	—	BSI pending	—		UL/CSA
—	—	—	—	—	—	BSI No. 7730 (Standard insulation)	—	10 <sup>5</sup> rating BSI No. 7730 (Standard insulation)	UL/CSA
—	—	—	—	—	—	BSI No. 7811 (Supplementary insulation)	—	10 <sup>5</sup> rating BSI No. 7811 (Supplementary insulation)	UL/CSA
—	—	—	—	—	—	BSI No. 7976 (Standard insulation)	—	10 <sup>5</sup> rating (3×10 <sup>4</sup> rating for 0.3A 110V DC) BSI No. 7976 (Standard insulation)	UL/CSA
—	—	—	—	—	—	BSI No. 7957 (Function insulation)	—	10 <sup>5</sup> Rating BSI No. 7957 (Function insulation)	UL/CSA
—	—	—	—	—	—	—	—	10 <sup>5</sup> rating	UL/CSA
—	—	—	—	—	—	—	—	10 <sup>5</sup> rating	UL/CSA
—	—	—	—	—	—	BSI No. 7729 (Standard insulation)	—	10 <sup>5</sup> rating BSI No. 7729 (Standard insulation)	UL/CSA
—	—	—	—	—	—	—	—	10 <sup>5</sup> rating	UL/CSA
—	—	—	—	—	—	BSI No. 8005 (Function insulation)	—	10 <sup>5</sup> rating	UL/CSA
—	—	—	—	—	—	BSI No. 8429 (Reinforced)	—	10 <sup>5</sup> rating BSI No. 8429 (Reinforced)	UL/CSA
—	—	—	—	—	—	BSI No. 8005 (Function insulation)	—	10 <sup>5</sup> rating	UL/CSA
—	approved	—	—	—	—	—	—	SEMKO approved SEV approved	UL/C-UL, VDE SEMKO
—	—	—	—	—	—	—	—		UL/CSA, TÜV
0145102	3 (2) A 250V AC 5A 30V DC	—	—	—	—	—	—		UL/CSA, VDE, SEMKO
—	—	—	—	—	—	—	—		UL/CSA
—	—	—	—	—	—	—	—		UL/CSA
—	—	—	—	—	—	—	—		UL/CSA
—	—	—	—	—	—	—	—		UL/CSA

# Standards Chart

Item	UL/C-UL (Recognized)		CSA (Certified)		VDE (Certified)		TV rating (UL/CSA)		TUV (Certified)	
	File No.	Contact rating	File No.	Contact rating	File No.	Contact rating	File No.	Rating	File No.	Rating
DSP	1a	E43028 8A 250V AC 1/4HP 125, 250V AC 5A 30V DC	LR26550 etc.	8A 250V AC 1/4HP 125, 250V AC 5A 30V DC	—	—	—	—	93 11 13461 081	8A 250V AC (cosφ=1.0) 5A 250V AC (cosφ=0.4) 5A 30V DC
	1a1b	E43028 5A 250V AC 1/4HP 125, 250V AC 5A 30V DC	LR26550 etc.	5A 250V AC 1/4HP 125, 250V AC 5A 30V DC	—	—	—	—	93 11 13461 081	5A 250V AC (cosφ=1.0) 3A 250V AC (cosφ=0.4) 5A 30V DC
	2a	E43028 5A 250V AC 1/10HP 125, 250V AC 5A 30V DC	LR26550 etc.	5A 250V AC 1/10HP 125, 250V AC 5A 30V DC	—	—	—	—	93 11 13461 081	5A 250V AC (cosφ=1.0) 3A 250V AC (cosφ=0.4) 5A 30V DC
DK	1a	E43028 10A 250V AC 1/2HP 125, 250V AC 10A 30V DC	LR26550 etc.	10A 250V AC 1/2HP 125, 250V AC 10A 30V DC	—	—	—	—	87 05 1645 520	10A 250V AC (cosφ=1.0) 5A 250V AC (cosφ=0.4) 10A 30V DC
	1a1b, 2a	E43028 8A 250V AC 1/4HP 125, 250V AC 8A 30V DC	LR26550 etc.	8A 250V AC 1/4HP 125, 250V AC 8A 30V DC	—	—	—	—	87 05 1645 520	8A 250V AC (cosφ=1.0) 4A 250V AC (cosφ=0.4) 8A 30V DC
DE	1a	E120782 PILOT DUTY B300 R300	LR85932	PILOT DUTY B300 R300	115944	8A 250V to (cosφ=1.0)	—	—	—	—
	1a1b	E120782 PILOT DUTY B300 R300	LR85932	PILOT DUTY B300 R300	115944	8A 250V to (cosφ=1.0)	—	—	—	—
	2a	E120782 PILOT DUTY B300 R300	LR85932	PILOT DUTY B300 R300	115944	8A 250V to (cosφ=1.0)	—	—	—	—
DJ (ADJ)	E43149	16A 277V AC	—	Certified by C-UL	—	—	—	—	—	—
DQ (ADQ)	E43149	30A 277V AC	—	Certified by C-UL	—	—	—	—	—	—
S	E43028	4A 250V AC 1/20HP 125V AC (FLA1.5A) 1/20HP 250V AC (FLA0.75A) 3A 30V DC	LR26550 etc.	4A 250V AC 1/20HP 125V AC 1/20HP 250V AC 3A 30V DC	—	—	—	—	—	—
ST	E43028	8A 250V AC 1/4HP 125, 250V AC 5A 30V DC	LR26550 etc.	8A 250V AC 1/4HP 125, 250V AC 5A 30V DC	1017	8A 250V to (cosφ=1.0) 4A 250V to (cosφ=0.4) 5A 30V ■	UL E43028 CSA LR26550	ST1-->TV-3 (Without -Y3) ST2-->TV-3 (Without 7&8 -Y3 terminal)	—	—
SP	2c	E43028 15A 250V AC 1/2HP 125, 250V AC 10A 30V DC	LR26550 etc.	15A 250V AC 10A 250V AC 1/2HP 125, 250V AC 10A 30V DC	—	—	—	—	B03 03 13461 010	15A 250V AC (cosφ=1.0) 10A 30V DC
	4c	E43028 10A 250V AC 1/3HP 125, 250V AC 10A 30V DC	LR26550 etc.	10A 250V AC 1/3HP 125, 250V AC 10A 30V DC	—	—	—	—	94 07 13461 093	10A 250V AC (cosφ=1.0) 10A 30V DC
SF	E43149	6A 250V AC	LR26550 etc.	6A 250V AC	—	—	—	—	—	TUV approved
SF double contact	E120782	6A 250V AC 6A 24V DC	—	Certified by C-UL	—	—	—	—	968 EZ 116.00 01 (SF2D) 968 EZ 113.00 01 (SF4D)	8A 240V DC 6A 230V AC
LF (ALF)	E43028	25A 277V AC 20A 277V AC	—	Certified by C-UL	Nr. 127653 UG	20A 250V AC (cosφ=1.0)	—	—	BL 99 11 13461 190	20A 250V AC (cosφ=1.0)
LE (ALE)	E43149	16A 277V AC 16A 30V DC 18A 125V AC	LR26550	16A 277V AC 16A 30V DC 18A 125V AC	Nr. 122405 UG	16A 250V AC (cosφ=1.0) 16A 30V DC (0ms.)	UL E43149 CSA LR26550	TV-5	BL 99 08 13461 196	16A 250V AC (cosφ=1.0) 16A 30V DC (0ms.)
LZ (ALZ)	E43149	16A 277V AC 34.8LRA/7.2FLA/120V AC 15LRA/3FLA/120V AC 10LRA/3FLA/240V AC 20A 240V AC (N.O. only) 16A 30V DC 25A 240V AC 15A 240V AC Resistive load 105°C (N.O. only)	—	Certified by C-UL	Nr. 40000380	16A 250V AC (cosφ=1.0)	C-UL E43149	TV-5	—	—
LJ (ALJ)	E43149	3A 277V AC Resistive 10 <sup>6</sup> cycles 3A 30V DC Resistive 6x10 <sup>3</sup> cycles 5A 277V AC General Use 5x10 <sup>4</sup> cycles 1/8HP 277V AC 3x10 <sup>3</sup> cycles	—	Certified by C-UL	40004718	3A 250V AC (cosφ=1.0) 10 <sup>5</sup> cycles 3A 30V DC 0ms 10 <sup>4</sup> cycles	—	—	—	—
LD (ALD)	E43028	3A 277V AC 3A 30V DC	LR26550 etc.	3A 277V AC 3A 30V DC	Nr. 117344 UG	3A 250V AC (cosφ=1.0) 3A 30V DC (0ms.)	—	—	B02 09 13461 237	3A 250V AC (cosφ=1.0) 3A 30V DC (0ms.)
LA (ALA)	Standard	E43149 3A 125V AC 3A 30V DC 5A 50V DC	LR26550 etc.	3A 125V AC 3A 30V DC 5A 50V DC	Nr. 116920 UG	3A 125V AC (cosφ=1.0) 3A 30V DC (0ms.)	—	—	BL 98 04 13461 146	3A 125V AC (cosφ=1.0) 3A 30V DC (0ms.)
	High capacity	E43149 5A 277V AC 5A 30V DC	LR26550 etc.	5A 277V AC 5A 30V DC	Nr. 116920 UG	5A 250V DC (cosφ=1.0) 5A 30V DC (0ms.)	UL E43149 CSA LR26550	TV-4	BL 98 04 13461 146	5A 250V AC (cosφ=1.0) 5A 30V DC (0ms.)
LK-S	E43149	5A 277V AC 5A 30V DC 10A 277V AC	LR26550 etc.	5A 277V AC 5A 30V DC 10A 277V AC	Nr. 6620 UG	5A 250V AC (cosφ=1.0) 10A 250V AC (cosφ=1.0)	UL E43149 CSA LR26550	TV-5	BL 99 05 13461 162	5A 250V AC (cosφ=1.0)
LK-P	E43149	10A 277V AC 5A 30V DC	LR26550 etc.	10A 277V AC 5A 30V DC	Nr. 6620 UG	10A 250V AC (cosφ=1.0)	UL E43149 CSA LR26550	TV-5	BL 99 05 13461 161	10A 250V AC (cosφ=1.0) 5A 30V DC (0ms.)
LK	E43149	5A 277V AC 5A 30V DC	LR26550 LR68004	5A 277V AC 5A 30V DC	Nr. 6620	5A 250V AC (cosφ=1.0)	UL E43149 CSA LR26550	TV-5	99 05 13461 160	5A 250V AC (cosφ=1.0) 5A 30V DC (0ms.)

# Standards Chart

SEMKO (Certified)		FIMKO		SEV		BSI		Remarks	Standard marking
File No.	Contact rating	File No.	Contact rating	File No.	Contact rating	File No.	Rating		
—	—	—	—	—	—	—	—		UL/CSA, TÜV
—	—	—	—	—	—	—	—		UL/CSA, TÜV
—	—	—	—	—	—	—	—		UL/CSA, TÜV
—	—	—	—	—	—	—	—		UL/CSA, TÜV
—	—	—	—	—	—	—	—		UL/CSA, VDE, TÜV
—	—	—	—	—	—	—	—		UL/CSA, VDE
—	—	—	—	—	—	—	—		UL/CSA, VDE
—	—	—	—	—	—	—	—		UL/CSA, VDE
—	—	—	—	—	—	—	—		UL/C-UL, VDE (Pending)
—	—	—	—	—	—	—	—		UL/C-UL
—	—	—	—	—	—	—	—		UL/CSA
—	—	—	—	—	SEV approved	—	—		UL/CSA, VDE, SEV
—	—	—	—	—	—	—	—		UL/CSA, TÜV
—	—	—	—	—	—	—	—		UL/CSA, TÜV
—	—	—	—	—	SEV approved	—	—		UL/CSA, TÜV, SEV
—	—	—	—	01, 1851	6A 230V AC 6A 24V DC	—	—		UL/C-UL, TÜV, SEV
—	—	—	—	—	—	—	—		C-UL, TÜV, VDE
9923078	10A 250V AC 16A 30V DC (High sensitivity type is not approved)	—	—	—	—	—	—		UL/CSA, TÜV, VDE
—	—	—	—	—	—	—	—		C-UL, VDE
—	—	—	—	—	—	—	—		UL/C-UL, VDE
—	—	—	—	—	—	—	—		UL/CSA, TÜV
9749137	3A 125V AC 3A 30V DC	—	—	—	—	—	—		SEMKO, TÜV, UL/CSA, VDE
9749137	4A/65A 250V AC	—	—	—	—	—	—		SEMKO, TÜV, UL/CSA, VDE, TV-4
9920150	3A/100A 250V AC 5A/40V 250V AC	—	—	98, 5 51716, 01	5A 250V AC	—	—		SEMKO, TÜV, UL/CSA, TV-5
9920150	3A/100A 250V AC 5A/40V 250V AC 10A 250V DC	—	—	98, 5 51716, 01	10A 250V AC	—	—		SEMKO, TÜV, UL/CSA, TV-5
9920150	3A/100A 250V AC 5A/40V 250V AC	—	—	96, 1 10533, 02	—	8007	3A/100A 250V AC		SEMKO, TÜV, UL/CSA, TV-5

# Standards Chart

Item	UL/C-UL (Recognized)		CSA (Certified)		VDE (Certified)		TV rating (UL/CSA)		TUV (Certified)	
	File No.	Contact rating	File No.	Contact rating	File No.	Contact rating	File No.	Rating	File No.	Rating
JQ	Standard type (5A) 1a	E43028 5A 125V AC 5A 277V AC 5A 30V DC 0.3A 110V DC 1/10HP 125V AC 1/6HP 277V AC	LR26550	5A 125V AC 5A 277V AC 5A 30V DC 0.3A 110V DC 1/10HP 125V AC 1/6HP 277V AC	Nr.005336 UG Nr.084049 UG	5A 250V AC (cosφ=0.4) (N.O.) 5A 30V DC (0ms) (N.C.)	—	—	B 02 07 13461 229	5A 250V AC (cosφ=0.4) 5A 30V DC (0ms)
	Standard type (5A) 1c	E43028 5A 125V AC 5A 277V AC 5A 30V DC 0.3A 110V DC 1/10HP 125V AC 1/6HP 277V AC	LR26550	5A 125V AC 5A 277V AC 5A 30V DC 0.3A 110V DC 1/10HP 125V AC 1/6HP 277V AC	Nr.005336 UG Nr.084049 UG	5A 250V AC (cosφ=0.4) (N.O.) 3A 250V AC (cosφ=0.4) (N.C.) 5A 30V DC (0ms)	—	—	B 02 07 13461 229	5A 250V AC (cosφ=0.4) 5A 30V DC (0ms)
	High capacity type (10A) 1a	E43028 10A 125V AC 8A 277V AC 5A 30V DC 0.3A 110V DC 1/6HP 125V AC 1/6HP 277V AC	LR26550	10A 125V AC 8A 277V AC 5A 30V DC 0.3A 110V DC 1/6HP 125V AC 1/6HP 277V AC	Nr.005336 UG Nr.084049 UG	10A 250V AC (cosφ=0.4) 5A 30V DC (0ms)	—	—	B 02 07 13461 229	10A 250V AC (cosφ=0.4) 5A 30V DC (0ms)
	High capacity type (10A) 1c	E43028 10A 125V AC 8A 277V AC 5A 30V DC 0.3A 110V DC 1/6HP 125V AC 1/6HP 277V AC	LR26550	10A 125V AC 8A 277V AC 5A 30V DC 0.3A 110V DC 1/6HP 125V AC 1/6HP 277V AC	Nr.005336 UG Nr.084049 UG	(N.O.) 10A 250V to (cosφ=0.4) (N.C.) 3A 250V to (cosφ=0.4) 5A 30V (0ms)	—	—	B 02 07 13461 229	10A 250V AC (cosφ=0.4) 5A 30V DC (0ms)
JS	Standard type	E43028 10A 125V AC, 6A 277V AC 5A 30V DC, 1/6HP 125V AC 1/6HP 277V AC 12A 125V AC (N.O., N.C.) 12A 277V AC (N.O., N.C.) 10A 125V AC (N.O., N.C.) 85°C 5A 125V AC (N.O., N.C.) 105°C, B type 4FLA/4LRA 125V AC105°C 2FLA/4LRA 125V AC105°C 1/6HP 125V AC70°C N.O. 1/6HP 277V AC70°C N.O. 6FLA/6LRA 125V AC85°C (N.O.)	LR26550	10A 125V AC 12A 125V AC 6A 277V AC 12A 277V AC 5A 30V DC 1/6HP 125V AC 1/6HP 277V AC	Nr.004065 UG	10A 125V to (cosφ=1.0) 5A 30V (0ms) 6A 250V AC (cosφ=1.0)	UL E43028 CSA LR26550	1a-->TV-5 1c-->TV-5 (N.O.)	96 11 13461 129	10A 125V AC (cosφ=1.0) 6A 250V AC (cosφ=0.4) 5A 30V DC (0ms)
JV-N		E43028 16A 125V AC 16A 277V AC 10A 30V DC 0.3A 110V DC 1/10HP 125V AC 1/10HP 277V AC	LR26550	16A 125V AC 16A 277V AC 10A 30V DC 0.3A 110V DC 1/10HP 125V AC 1/10HP 277V AC	—	—	—	—	96 11 13461 129	16A 250V AC (cosφ=0.4) 10A 30V DC (0ms)
JW	Standard type 1a	E43028 5A 277V AC 5A 30V DC 1/6HP 125V AC 1/6HP 250V AC	LR26550 etc.	5A 277V AC 5A 30V DC 1/6HP 125V AC 1/6HP 250V AC B300	Nr.004090 UG Nr.004257 UG Nr.131174 UG	5A 250V AC (cosφ=1.0) 3A 250V AC (cosφ=0.4) 5A 30V DC (0ms)	UL E43028 CSA LR26550 etc.	1a-->TV-5	87 05 1645 521	5A 250V AC (cosφ=1.0) 3A 250V AC (cosφ=0.4) 5A 30V DC (0ms)
	Standard type 1c	E43028 5A 277V AC 5A 30V DC 1/6HP 125V AC 1/6HP 250V AC	LR26550 etc.	5A 277V AC 5A 30V DC 1/6HP 125V AC 1/6HP 250V AC B300	Nr.004090 UG Nr.004257 UG Nr.131174 UG	5A 250V AC (cosφ=1.0) 3A 250V AC (cosφ=0.4) 5A 30V DC (0ms)	—	—	87 05 1645 521	5A 250V AC (cosφ=1.0) 3A 250V AC (cosφ=0.4) 5A 30V DC (0ms)
	Standard type 2a	E43028 5A 277V AC 5A 30V DC 1/6HP 125V AC 1/6HP 250V AC B300	LR26550 etc.	5A 277V AC 5A 30V DC 1/6HP 125V AC 1/6HP 250V AC B300	Nr.004090 UG Nr.004257 UG Nr.131174 UG	5A 250V AC (cosφ=1.0) 3A 250V AC (cosφ=0.4) 5A 30V DC (0ms)	—	—	87 05 1645 521	5A 250V AC (cosφ=1.0) 3A 250V AC (cosφ=0.4) 5A 30V DC (0ms)
	Standard type 2c	E43028 5A 277V AC 5A 30V DC 1/6HP 125V AC 1/6HP 250V AC B300	LR26550 etc.	5A 277V AC 5A 30V DC 1/6HP 125V AC 1/6HP 250V AC B300	Nr.004090 UG Nr.004257 UG Nr.131174 UG	5A 250V AC (cosφ=1.0) 3A 250V AC (cosφ=0.4) 5A 30V DC (0ms)	—	—	87 05 1645 521	5A 250V AC (cosφ=1.0) 3A 250V AC (cosφ=0.4) 5A 30V DC (0ms)
	High capacity type 1a	E43028 10A 277V AC 10A 30V DC 1/3HP 125V AC 1/3HP 250V AC B300	LR26550 etc.	10A 277V AC 10A 30V DC 1/3HP 125V AC 1/3HP 250V AC	Nr.004090 UG Nr.004257 UG Nr.131174 UG	10A 250V AC (cosφ=1.0) 10A 250V AC (cosφ=0.4) 10A 30V DC (0ms)	UL E43028 CSA LR26550	1a-->TV-5	87 05 1645 521	10A 250V AC (cosφ=1.0) 7A 250V AC (cosφ=0.4) 10A 30V DC (0ms)
	High capacity type 1c	E43028 10A 277V AC 10A 30V DC 1/3HP 125V AC 1/3HP 250V AC	LR26550 etc.	10A 277V AC 10A 30V DC 1/3HP 125V AC 1/3HP 250V AC	Nr.004090 UG Nr.004257 UG Nr.131174 UG	10A 250V AC (cosφ=1.0) 10A 250V AC (cosφ=0.4) 10A 30V DC (0ms)	—	—	87 05 1645 521	10A 250V AC (cosφ=1.0) 7A 250V AC (cosφ=0.4) 10A 30V DC (0ms)
JC	1a	E43028 15A 250V AC 15A 30V DC 1HP 125V AC 1HP 250V AC	LR26550 etc.	15A 250V AC 15A 30V DC 1HP 125V AC 1HP 250V AC	Nr. 2771 UG	10A 250V AC (cosφ=1.0) 7.5A 250V AC (cosφ=0.4) 10A 30V DC (0ms)	UL E43028 CSA LR26550	TV-8	93 02 13461 078	15A 250V AC (cosφ=1.0)
	2a	E43028 10A 250V AC 10A 30V DC 1/3HP 125V AC 1/3HP 250V AC	LR26550 etc.	10A 250V AC 10A 30V DC 1/3HP 125V AC 1/3HP 250V AC	Nr. 2771 UG	5A 250V AC (cosφ=1.0) 3A 250V AC (cosφ=0.4) 5A 30V DC (0ms)	UL E43028 CSA LR26550 etc.	TV-5	93 02 13461 078	10A 250V AC (cosφ=1.0) 5A 50V DC (0ms)



# Standards Chart

Item	UL/C-UL (Recognized)		CSA (Certified)		VDE (Certified)		TV rating (UL/CSA)		TUV (Certified)	
	File No.	Contact rating	File No.	Contact rating	File No.	Contact rating	File No.	Rating	File No.	Rating
JM	Slim type	E43028 20A 125V AC 20A 250V AC 1½HP 125V AC 1HP 250V AC	LR26550	20A 125V AC 20A 250V AC 1½HP 125V AC 1HP 250V AC	Nr. 3584	20A 250V to (cosφ=1.0) 12A 220V to (cosφ=0.4)	—	—	B02 07 13461 231	20A 250V AC (cosφ=1.0) 20A 250V AC (cosφ=0.4) 10A 30V DC (0ms)
	Flat type	E43028 20A 125V AC 20A 250V AC 1½HP 125V AC 1HP 250V AC	LR26550	20A 125V AC 20A 250V AC 1½HP 125V AC 1HP 250V AC	Nr. 3584	20A 250V to (cosφ=1.0) 12A 230V to (cosφ=0.4)	—	—	B02 07 13461 227	20A 250V AC (cosφ=1.0) 20A 250V AC (cosφ=0.4) 10A 30V DC (0ms)
JT-V	1a	E43028 30A 277V AC, 2HP 250V AC, 1HP 125V AC Tungsten 15A 125V AC, 5A 250V AC	—	Certified by C-UL	—	—	—	—	—	—
	1c	E43028 (N.C. side) 10A 277V AC, 1/2HP 250V AC, 1/4HP 125V AC (N.O. side) 20A 277V AC, 2HP 250V AC, 1HP 125V AC	—		—	—	—	—	—	—
JT-N	1a	E43028 30A 277V AC, 2HP 250V AC, 1HP 125V AC Tungsten 15A 125V AC, 5A 250V AC	LR68004	10A 277V AC, 1HP 250V AC, 3/4HP 125V AC	—	—	—	—	—	—
	1c	E43028 (N.C. side) 10A 277V AC, 1/2HP 250V AC, 1/4HP 125V AC (N.O. side) 20A 277V AC, 2HP 250V AC, 1HP 125V AC	LR68004	(N.C. side) 10A 277V AC, 1/2HP 250V AC, 1/4HP 125V AC (N.O. side) 10A 277V AC, 15A 125V AC, 1HP 250V AC, 3/4HP 125V AC	—	—	—	—	—	—
HN (AHN)	2c	E43149 5A 277V AC 5A 30V DC	—	Certified by C-UL	—	—	—	—	—	—
HJ	2c	E43149 7A 250V AC 7A 30V DC	—	Certified by C-UL	—	—	—	—	R2024382 (Standard) R2-50006950 (Push button) R50006950 (CR diode Au plating)	7A 250V to (cosφ=1.0) 7A 30V ■ (0ms)
	4c	E43149 5A 200V AC 5A 30V DC	—	Certified by C-UL	—	—	—	—	R2024382 (Standard) R2-50006950 (Push button) R50006950 (CR diode Au plating)	5A 250V to (cosφ=1.0) 5A 30V ■ (0ms)
HC Standard	1c	E43028 10A 250V AC ½HP 125, 250V AC 3A 30V DC	LR26550 etc.	10A 250V AC ½HP 125, 250V AC 3A 30V DC	4811, 2011 2735UG	10A 250V to (cosφ=1.0) 3A 250V to AC (cosφ=0.4) 3A 30V ■ (0ms)	UL E43149 CSA LR26550 LR42758 LR44444	TV-3	—	—
	2c	E43028 7A 250V AC ½HP 125, 250V AC 3A 30V DC	LR26550 etc.	7A 250V AC ½HP 125, 250V AC 3A 30V DC	4811, 2011 2735UG	7A 250V to (cosφ=1.0) 2A 250V to (cosφ=0.4) 3A 30V ■ (0ms)	UL E43149 CSA LR26550 LR42758 LR44444	TV-3	—	—
	3c	E43028 7A 250V AC ½HP 125, 250V AC 3A 30V DC	LR26550 etc.	7A 250V AC ½HP 125, 250V AC 3A 30V DC	—	—	—	—	—	—
	4c	E43028 5A 250V AC ½HP 125, 250V AC 3A 30V DC	LR26550 etc.	5A 250V AC ½HP 125, 250V AC 3A 30V DC	4811, 209 2735UG	5A 65V to (cosφ=1.0) 3A 65V to (cosφ=0.4) 3A 30V ■ (0ms)	—	—	—	—
	4c twin	E43028 3A 250V AC 3A 30V DC	LR42758	3A 250V AC 3A 30V DC	—	—	—	—	—	—
HC Amber	1c	E43028 6A 250V AC ½HP 125, 250V AC 3A 30V DC	LR26550 etc.	6A 250V AC ½HP 125, 250V AC 3A 30V DC	—	—	—	—	—	—
	2c	E43028 4A 250V AC ½HP 125, 250V AC 3A 30V DC	LR26550 etc.	4A 250V AC ½HP 125, 250V AC 3A 30V DC	—	—	—	—	—	—
	4c	E43028 2A 250V AC ½HP 125, 250V AC 2A 30V DC	LR26550 etc.	2A 250V AC ½HP 125, 250V AC 2A 30V DC	—	—	—	—	—	—
	4c twin	E43028 1A 250V AC 1A 30V DC	LR42758	1A 250V AC 1A 30V DC	—	—	—	—	—	—
HC keep	E43149 3A 250V AC 3A 30V DC	LR26550 etc.	3A 250V AC 3A 30V DC	—	—	—	—	—	—	
HC included diode type (For DC)	1c	E43028 10A 250V AC ½HP 125, 250V AC 3A 30V DC	LR26550 etc.	10A 250V AC ½HP 125, 250V AC 3A 30V DC	—	—	—	—	—	—
	2c	E43028 7A 250V AC ½HP 125, 250V AC 3A 30V DC	LR26550 etc.	7A 250V AC ½HP 125, 250V AC 3A 30V DC	—	—	—	—	—	—
	3c	E43028 7A 250V AC ½HP 125, 250V AC 3A 30V DC	LR26550 etc.	7A 250V AC ½HP 125, 250V AC 3A 30V DC	—	—	—	—	—	—
	4c	E43028 5A 250V AC ½HP 125, 250V AC 3A 30V DC	LR26550 etc.	5A 250V AC ½HP 125, 250V AC 3A 30V DC	—	—	—	—	—	—
	4c twin	E43028 3A 250V AC 3A 30V DC	LR42758	3A 250V AC 3A 30V DC	—	—	—	—	—	—









# Standards Chart

## PhotoMOS Relays

### • PhotoMOS (GU SOP type)

Item	UL/C-UL (Recognized)		CSA (Certified)		Remarks		
	File No. (Standard No.)	Contact rating	File No. (Standard No.)	Contact rating			
AC/DC	AQY212GS	E191218 (UL1577)	1.0A 60V AC (peak) 1.0A 60V DC	C-UL approved	—	VDE approved (Nr.40003143)	
	AQY212S	E43149 (UL508)	0.5A 60V AC (peak) 0.5A 60V DC	Certified by C-UL	0.5A 60V AC (peak) 0.5A 60V DC	BSI approved (EN60065, EN41003, EN60950) 8002, 8003	
	AQY210S		0.12A 350V AC (peak) 0.12A 350V DC		0.12A 350V AC (peak) 0.12A 350V DC	BSI approved (EN60065, EN41003, EN60950) 8002, 8003	
	AQY214S		0.1A 400V AC (peak) 0.1A 400V DC		0.1A 400V AC (peak) 0.1A 400V DC		
	AQV212S		0.35A 60V AC (peak) A connection 0.35A 60V DC A connection 0.5A 60V DC B connection 0.7A 60V DC C connection		0.35A 60V AC (peak) A connection 0.35A 60V DC A connection 0.5A 60V DC B connection 0.7A 60V DC C connection		
	AQV215S		0.3A 100V AC (peak) A connection 0.3A 100V DC A connection 0.4A 100V DC B connection 0.56A 100V DC C connection		0.3A 100V AC (peak) A connection 0.3A 100V DC A connection 0.4A 100V DC B connection 0.56A 100V DC C connection		
	AQV217S		0.16A 200V AC (peak) A connection 0.16A 200V DC A connection 0.2A 200V DC B connection 0.28A 200V DC C connection		0.16A 200V AC (peak) A connection 0.16A 200V DC A connection 0.2A 200V DC B connection 0.28A 200V DC C connection		
	AQV210S		0.12A 350V AC (peak) A connection 0.12A 350V DC A connection 0.13A 350V DC B connection 0.15A 350V DC C connection		0.12A 350V AC (peak) A connection 0.12A 350V DC A connection 0.13A 350V DC B connection 0.15A 350V DC C connection		
	AQV214S		0.10A 400V AC (peak) A connection 0.10A 400V DC A connection 0.11A 400V DC B connection 0.12A 400V DC C connection		0.10A 400V AC (peak) A connection 0.10A 400V DC A connection 0.11A 400V DC B connection 0.12A 400V DC C connection		
	AQV216S		0.04A 400V AC (peak) A connection 0.04A 600V DC A connection 0.05A 600V DC B connection 0.06A 600V DC C connection		0.04A 400V AC (peak) A connection 0.04A 600V DC A connection 0.05A 600V DC B connection 0.06A 600V DC C connection		
	AQY410S		0.12A 350V AC (peak) 0.12A 350V DC		0.12A 350V AC (peak) 0.12A 350V DC		
	AQY414S		0.1A 400V AC (peak) 0.1A 400V DC		0.1A 400V AC (peak) 0.1A 400V DC	BSI approved (EN60065, EN41003, EN60950) 8002, 8003	
	AQV414S		0.10A 400V AC (peak) A connection 0.10A 400V DC A connection 0.11A 400V DC B connection 0.12A 400V DC C connection		0.10A 400V AC (peak) A connection 0.10A 400V DC A connection 0.11A 400V DC B connection 0.12A 400V DC C connection		
	AQW210S		1-pole 0.13A 350V AC (peak) 0.13A 350V DC 2-poles 0.1A 350V AC (peak) 0.1A 350V DC		1-pole 0.13A 350V AC (peak) 0.13A 350V DC 2-poles 0.1A 350V AC (peak) 0.1A 350V DC		
	AQW214S		1-pole 0.1A 400V AC (peak) 0.1A 400V DC 2-poles 0.08A 400V AC (peak) 0.08A 400V DC		1-pole 0.1A 400V AC (peak) 0.1A 400V DC 2-poles 0.08A 400V AC (peak) 0.08A 400V DC	BSI approved (EN60065, EN41003, EN60950) 8002, 8003	
	AQW610S		0.1A 350V AC (peak) 0.1A 350V DC		0.1A 350V AC (peak) 0.1A 350V DC		
	AQY210KS		E191218 (UL1577)		0.12A 350V AC (peak) 0.12A 350V DC	Certified by C-UL	
AQY210LS	E43149 (UL508)		0.12A 350V AC (peak) 0.12A 350V DC		Certified by C-UL	0.12A 350V AC (peak) 0.12A 350V DC	

### • PhotoMOS (RF SOP type)

Item	UL/C-UL (Recognized)		CSA (Certified)		Remarks	
	File No. (Standard No.)	Contact rating	File No. (Standard No.)	Contact rating		
AC/DC	AQY221N1S	E191218 (UL1577)	0.12A 40V AC (peak) 0.12A 40V DC	Pending	0.12A 40V AC (peak) 0.12A 40V DC	
	AQV227NS	E43149 (UL508)	0.05A 200V AC (peak) A connection 0.05A 200V DC A connection 0.06A 200V DC B connection 0.08A 200V DC C connection	Certified by C-UL	0.05A 200V AC (peak) A connection 0.05A 200V DC A connection 0.06A 200V DC B connection 0.08A 200V DC C connection	
	AQV224NS		0.04A 400V AC (peak) A connection 0.04A 400V DC A connection 0.05A 400V DC B connection 0.06A 400V DC C connection		0.04A 400V AC (peak) A connection 0.04A 400V DC A connection 0.05A 400V DC B connection 0.06A 400V DC C connection	
	AQW227NS		1-pole 0.05A 200V AC (peak) 0.05A 200V DC 2-poles 0.04A 200V AC (peak) 0.04A 200V DC		1-pole 0.05A 200V AC (peak) 0.05A 200V DC 2-poles 0.04A 200V AC (peak) 0.04A 200V DC	
	AQS225S		0.05A 80V AC (peak) 0.05A 80V DC		0.05A 80V AC (peak) 0.05A 80V DC	

## • PhotoMOS (GU type)

Item	File No. (Standard No.)	UL/C-UL (Recognized)		CSA (Certified)		Remarks
		File No. (Standard No.)	Contact rating	File No. (Standard No.)	Contact rating	
AC/DC	AQY212GH	E191218 (UL1577)	1.1A 60V AC (peak) 1.1A 60V DC	C-UL approved	—	VDE approved (Nr.40003143)
	AQV212(A)	E43149 (UL508)	0.55A 60V AC (peak) A connection 0.55A 60V DC A connection 0.65A 60V DC B connection 0.8A 60V DC C connection	Certified by C-UL	0.55A 60V AC (peak) A connection 0.55A 60V DC A connection 0.65A 60V DC B connection 0.8A 60V DC C connection	BSI approved (EN60065, EN41003, EN60950) CR No.7395, 7396
	AQV215(A)		0.32A 100V AC (peak) A connection 0.32A 100V DC A connection 0.42A 100V DC B connection 0.60A 100V DC C connection		0.32A 100V AC (peak) A connection 0.32A 100V DC A connection 0.42A 100V DC B connection 0.60A 100V DC C connection	
	AQV217(A)		0.18A 200V AC (peak) A connection 0.18A 200V DC A connection 0.22A 200V DC B connection 0.30A 200V DC C connection		0.18A 200V AC (peak) A connection 0.18A 200V DC A connection 0.22A 200V DC B connection 0.30A 200V DC C connection	
	AQV210(A)		0.13A 350V AC (peak) A connection 0.13A 350V DC A connection 0.15A 350V DC B connection 0.17A 350V DC C connection		0.13A 350V AC (peak) A connection 0.13A 350V DC A connection 0.15A 350V DC B connection 0.17A 350V DC C connection	
	AQV214(A)		0.12A 400V AC (peak) A connection 0.12A 400V DC A connection 0.13A 400V DC B connection 0.15A 400V DC C connection		0.12A 400V AC (peak) A connection 0.12A 400V DC A connection 0.13A 400V DC B connection 0.15A 400V DC C connection	
	AQV214H(A)		0.12A 400V AC (peak) A connection 0.12A 400V DC A connection 0.13A 400V DC B connection 0.15A 400V DC C connection		0.12A 400V AC (peak) A connection 0.12A 400V DC A connection 0.13A 400V DC B connection 0.15A 400V DC C connection	
	AQV216(A)		0.05A 400V AC (peak) A connection 0.05A 600V DC A connection 0.06A 600V DC B connection 0.08A 600V DC C connection		0.05A 400V AC (peak) A connection 0.05A 600V DC A connection 0.06A 600V DC B connection 0.08A 600V DC C connection	
	AQV414(A)		0.12A 400V AC (peak) A connection 0.12A 400V DC A connection 0.13A 400V DC B connection 0.15A 400V DC C connection		0.12A 400V AC (peak) A connection 0.12A 400V DC A connection 0.13A 400V DC B connection 0.15A 400V DC C connection	
	AQW212(A)		1-pole 0.6A 60V AC (peak) 0.6A 60V DC 2-poles 0.5A 60V AC (peak) 0.5A 60V DC		1-pole 0.6A 60V AC (peak) 0.6A 60V DC 2-poles 0.5A 60V AC (peak) 0.5A 60V DC	
	AQW215(A)		1-pole 0.35A 100V AC (peak) 0.35A 100V DC 2-poles 0.3A 100V AC (peak) 0.3A 100V DC		1-pole 0.35A 100V AC (peak) 0.35A 100V DC 2-poles 0.3A 100V AC (peak) 0.3A 100V DC	
	AQW217(A)		1-pole 0.2A 200V AC (peak) 0.2A 200V DC 2-poles 0.16A 200V AC (peak) 0.16A 200V DC		1-pole 0.2A 200V AC (peak) 0.2A 200V DC 2-poles 0.16A 200V AC (peak) 0.16A 200V DC	
	AQW210(A)		1-pole 0.14A 350V AC (peak) 0.14A 350V DC 2-poles 0.12A 350V AC (peak) 0.12A 350V DC		1-pole 0.14A 350V AC (peak) 0.14A 350V DC 2-poles 0.12A 350V AC (peak) 0.12A 350V DC	
	AQW214(A)		1-pole 0.13A 400V AC (peak) 0.13A 400V DC 2-poles 0.1A 400V AC (peak) 0.1A 400V DC		1-pole 0.13A 400V AC (peak) 0.13A 400V DC 2-poles 0.1A 400V AC (peak) 0.1A 400V DC	
	AQW216(A)		1-pole 0.05A 400V AC (peak) 0.05A 600V DC 2-poles 0.04A 400V AC (peak) 0.04A 600V DC		1-pole 0.05A 400V AC (peak) 0.05A 600V DC 2-poles 0.04A 400V AC (peak) 0.04A 600V DC	
	AQW614(A)		1-pole 0.13A 400V AC (peak) 0.13A 400V DC 2-poles 0.1A 400V AC (peak) 0.1A 400V DC		1-pole 0.13A 400V AC (peak) 0.13A 400V DC 2-poles 0.1A 400V AC (peak) 0.1A 400V DC	
	AQW414(A)		1-pole 0.13A 400V AC (peak) 0.13A 400V DC 2-poles 0.1A 400V AC (peak) 0.1A 400V DC		1-pole 0.13A 400V AC (peak) 0.13A 400V DC 2-poles 0.1A 400V AC (peak) 0.1A 400V DC	
	AQV112KL	E191218 (UL1577)	0.5A 60V DC	Certified by C-UL	—	VDE approved (Nr.40003136)
	AQY210HL(A)	E43149 (UL508)	0.12A 350V AC (peak) 0.12A 350V DC	Certified by C-UL	0.12A 350V AC (peak) 0.12A 350V DC	
	AQW210HL(A)	E43149 (UL508)	0.12A 350V AC (peak) 0.12A 350V DC	Certified by C-UL	0.12A 350V AC (peak) 0.12A 350V DC	

## • PhotoMOS (HS type)

Item	File No. (Standard No.)	UL/C-UL (Recognized)		CSA (Certified)		Remarks
		File No. (Standard No.)	Contact rating	File No. (Standard No.)	Contact rating	
AC/DC	AQV234(A)	E43149 (UL508)	0.12A 400V AC (peak) A connection 0.12A 400V DC A connection 0.13A 400V DC B connection 0.15A 400V DC C connection	Certified by C-UL	0.12A 400V AC (peak) A connection 0.12A 400V DC A connection 0.13A 400V DC B connection 0.15A 400V DC C connection	

# Standards Chart

## • PhotoMOS (GE type)

Item	UL/C-UL (Recognized)		CSA (Certified)		Remarks
	File No. (Standard No.)	Contact rating	File No. (Standard No.)	Contact rating	
AC/DC	AQY211EH(A)	1A 30V AC (peak) 1A 30V DC	Certified by C-UL	1A 30V AC (peak) 1A 30V DC	BSI approved (EN60065, EN41003, EN60950) 7395, 7396
	AQY212EH(A)	0.55A 60V AC (peak) 0.55A 60V DC		0.55A 60V AC (peak) 0.55A 60V DC	
	AQY210EH(A)	0.13A 350V AC (peak) 0.13A 350V DC		0.13A 350V AC (peak) 0.13A 350V DC	
	AQY214EH(A)	0.12A 400V AC (peak) 0.12A 400V DC		0.12A 400V AC (peak) 0.12A 400V DC	
	AQY216EH(A)	0.05A 400V AC (peak) 0.05A 600V DC		0.05A 200V AC (peak) 0.05A 200V DC	
	AQV210E(A)	0.13A 350V AC (peak) A connection 0.13A 350V DC A connection 0.15A 350V DC B connection 0.17A 350V DC C connection		0.13A 350V AC (peak) A connection 0.13A 350V DC A connection 0.15A 350V DC B connection 0.17A 350V DC C connection	BSI approved (EN60065, EN41003, EN60950) CR No.7395, 7396
	AQV210EH(A)	0.13A 350V AC (peak) A connection 0.13A 350V DC A connection 0.15A 350V DC B connection 0.17A 350V DC C connection		0.13A 350V AC (peak) A connection 0.13A 350V DC A connection 0.15A 350V DC B connection 0.17A 350V DC C connection	
	AQV214E(A)	0.12A 400V AC (peak) A connection 0.12A 400V DC A connection 0.13A 400V DC B connection 0.15A 400V DC C connection		0.12A 400V AC (peak) A connection 0.12A 400V DC A connection 0.13A 400V DC B connection 0.15A 400V DC C connection	BSI approved (EN60065, EN41003, EN60950) CR No.7395, 7396
	AQV214EH(A)	0.12A 400V AC (peak) A connection 0.12A 400V DC A connection 0.13A 400V DC B connection 0.15A 400V DC C connection		0.12A 400V AC (peak) A connection 0.12A 400V DC A connection 0.13A 400V DC B connection 0.15A 400V DC C connection	
	AQY410EH(A)	0.13A 350V AC (peak) 0.13A 350V DC		0.13A 350V AC (peak) 0.13A 350V DC	BSI approved (EN60065, EN41003, EN60950) 7395, 7396
	AQY414EH	0.12A 400V AC (peak) 0.12A 400V DC		0.12A 400V AC (peak) 0.12A 400V DC	
	AQV414E(A)	0.12A 400V AC (peak) A connection 0.12A 400V DC A connection 0.13A 400V DC B connection 0.15A 400V DC C connection		0.12A 400V AC (peak) A connection 0.12A 400V DC A connection 0.13A 400V DC B connection 0.15A 400V DC C connection	BSI approved (EN60065, EN41003, EN60950) CR No.7395, 7396
	AQV410EH(A)	0.13A350V AC (peak) 0.13A350V DC		0.13A350V AC (peak) 0.13A350V DC	
	AQV414EH(A)	0.12A 400V AC (peak) A connection 0.12A 400V DC A connection 0.13A 400V DC B connection 0.15A 400V DC C connection		0.12A 400V AC (peak) A connection 0.12A 400V DC A connection 0.13A 400V DC B connection 0.15A 400V DC C connection	BSI approved (EN41003, EN60950) CR No.7395, 7396
	AQW212EH(A)	1-pole 0.6A 60V AC (peak) 0.6A 60V DC 2-poles 0.5A 60V AC (peak) 0.5A 60V DC		1-pole 0.6A 60V AC (peak) 0.6A 60V DC 2-poles 0.5A 60V AC (peak) 0.5A 60V DC	
	AQW210EH(A)	1-pole 0.14A 350V AC (peak) 0.14A 350V DC 2-poles 0.12A 350V AC (peak) 0.12A 350V DC		1-pole 0.14A 350V AC (peak) 0.14A 350V DC 2-poles 0.12A 350V AC (peak) 0.12A 350V DC	BSI approved (EN60065, EN41003, EN60950) 7395, 7396
	AQW214EH(A)	1-pole 0.13A 400V AC (peak) 0.13A 400V DC 2-poles 0.1A400V AC (peak) 0.1A 400V DC		1-pole 0.13A 400V AC (peak) 0.13A 400V DC 2-poles 0.1A400V AC (peak) 0.1A 400V DC	
	AQW216EH(A)	1-pole 0.05A 400V AC (peak) 0.05A 600V DC 2-poles 0.04A 600V AC (peak) 0.04A 600V DC		1-pole 0.05A 400V AC (peak) 0.05A 600V DC 2-poles 0.04A 600V AC (peak) 0.04A 600V DC	BSI approved (EN60065, EN41003, EN60950) 7395, 7396
	AQW610EH(A)	0.12A 350V AC (peak) 0.12A 350V DC		0.12A 350V AC (peak) 0.12A 350V DC	
	AQW614EH(A)	1-pole 0.13A 400V AC (peak) 0.13A 400V DC 2-poles 0.1A 400V AC (peak) 0.1A 400V DC		1-pole 0.13A 400V AC (peak) 0.13A 400V DC 2-poles 0.1A 400V AC (peak) 0.1A 400V DC	BSI approved (EN60065, EN41003, EN60950) 7395, 7396
AQW414EH(A)	1-pole 0.13A 400V AC (peak) 0.13A 400V DC 2-poles 0.1A 400V AC (peak) 0.1A 400V DC	1-pole 0.13A 400V AC (peak) 0.13A 400V DC 2-poles 0.1A 400V AC (peak) 0.1A 400V DC			

## • PhotoMOS (HF type)

Item	UL/C-UL (Recognized)		CSA (Certified)		Remarks
	File No. (Standard No.)	Contact rating	File No. (Standard No.)	Contact rating	
DC	AQV101(A)	0.7A 40V DC	Certified by C-UL	0.7A 40V DC	
	AQV102(A)	0.6A 60V DC		0.6A 60V DC	
	AQV103(A)	0.3A 250V DC		0.3A 250V DC	
	AQV104(A)	0.18A 400V DC		0.18A 400V DC	
AC/DC	AQV201(A)	0.5A 40V AC (peak) A connection 0.5A 40V DC A connection 0.7A 40V DC B connection 1.0A 40V DC C connection	Certified by C-UL	0.5A 40V AC (peak) A connection 0.5A 40V DC A connection 0.7A 40V DC B connection 1.0A 40V DC C connection	
	AQV202(A)	0.4A 60V AC (peak) A connection 0.4A 60V DC A connection 0.6A 60V DC B connection 0.8A 60V DC C connection		0.4A 60V AC (peak) A connection 0.4A 60V DC A connection 0.6A 60V DC B connection 0.8A 60V DC C connection	
	AQV203(A)	0.2A 250V AC (peak) A connection 0.2A 250V DC A connection 0.3A 250V DC B connection 0.4A 250V DC C connection		0.2A 250V AC (peak) A connection 0.2A 250V DC A connection 0.3A 250V DC B connection 0.4A 250V DC C connection	
	AQV204(A)	0.15A 400V AC (peak) A connection 0.15A 400V DC A connection 0.18A 400V DC B connection 0.25A 400V DC C connection		0.15A 400V AC (peak) A connection 0.15A 400V DC A connection 0.18A 400V DC B connection 0.25A 400V DC C connection	

# Standards Chart

## • PhotoMOS (HE type)

Item	UL/C-UL (Recognized)		CSA (Certified)		Remarks	
	File No. (Standard No.)	Contact rating	File No. (Standard No.)	Contact rating		
AQV252G	E191218 (UL1577)	5.0A 60V AC (peak) 5.0A 60V DC	Certified by C-UL	—	VDE approved (Nr.40003143)	
AQV251(A)	E43149 (UL508)	0.5A 40V AC (peak) A connection 0.5A 40V DC A connection 0.7A 40V DC B connection 1.0A 40V DC C connection	Certified by C-UL	0.5A 40V AC (peak) A connection 0.5A 40V DC A connection 0.7A 40V DC B connection 1.0A 40V DC C connection	BSI approved (EN60065, EN41003, EN60950) CR No.7395, 7396	
AQV252(A)		0.4A 60V AC (peak) A connection 0.4A 60V DC A connection 0.6A 60V DC B connection 0.8A 60V DC C connection		0.4A 60V AC (peak) A connection 0.4A 60V DC A connection 0.6A 60V DC B connection 0.8A 60V DC C connection		
AQV255(A)		0.35A 100V AC (peak) A connection 0.35A 100V DC A connection 0.45A 100V DC B connection 0.70A 100V DC C connection		0.35A 100V AC (peak) A connection 0.35A 100V DC A connection 0.45A 100V DC B connection 0.70A 100V DC C connection		
AQV257(A)		0.25A 200V AC (peak) A connection 0.25A 200V DC A connection 0.35A 200V DC B connection 0.5A 200V DC C connection		0.25A 200V AC (peak) A connection 0.25A 200V DC A connection 0.35A 200V DC B connection 0.5A 200V DC C connection		
AQV253(A)		0.2A 250V AC (peak) A connection 0.2A 250V DC A connection 0.3A 250V DC B connection 0.4A 250V DC C connection		0.2A 250V AC (peak) A connection 0.2A 250V DC A connection 0.3A 250V DC B connection 0.4A 250V DC C connection		
AQV253H(A)		0.2A 250V AC (peak) A connection 0.2A 250V DC A connection 0.3A 250V DC B connection 0.4A 250V DC C connection		0.2A 250V AC (peak) A connection 0.2A 250V DC A connection 0.3A 250V DC B connection 0.4A 250V DC C connection		
AQV254(A)		0.15A 400V AC (peak) A connection 0.15A 400V DC A connection 0.18A 400V DC B connection 0.25A 400V DC C connection		0.15A 400V AC (peak) A connection 0.15A 400V DC A connection 0.18A 400V DC B connection 0.25A 400V DC C connection		
AQV254H(A)		0.15A 400V AC (peak) A connection 0.15A 400V DC A connection 0.18A 400V DC B connection 0.25A 400V DC C connection		0.15A 400V AC (peak) A connection 0.15A 400V DC A connection 0.18A 400V DC B connection 0.25A 400V DC C connection		BSI approved (EN60065, EN41003, EN60950) CR No.7395,7396
AQV259(A)		0.03A 400V AC (peak) A connection 0.03A 600V DC A connection 0.04A 600V DC B connection 0.05A 600V DC C connection		0.03A 400V AC (peak) A connection 0.03A 600V DC A connection 0.04A 600V DC B connection 0.05A 600V DC C connection		
AQV258(A)		0.02A 400V AC (peak) A connection 0.02A 600V DC A connection 0.025A 600V DC B connection 0.04A 600V DC C connection		0.02A 400V AC (peak) A connection 0.02A 600V DC A connection 0.025A 600V DC B connection 0.04A 600V DC C connection		
AQV453(A)		0.2A 250V AC (peak) A connection 0.2A 250V DC A connection 0.3A 250V DC B connection 0.4A 250V DC C connection		0.2A 250V AC (peak) A connection 0.2A 250V DC A connection 0.3A 250V DC B connection 0.4A 250V DC C connection		
AQV454(A)		0.15A 400V AC (peak) A connection 0.15A 400V DC A connection 0.18A 400V DC B connection 0.25A 400V DC C connection		0.15A 400V AC (peak) A connection 0.15A 400V DC A connection 0.18A 400V DC B connection 0.25A 400V DC C connection		
AQV454H(A)		0.15A 400V AC (peak) A connection 0.15A 400V DC A connection 0.18A 400V DC B connection 0.25A 400V DC C connection		0.15A 400V AC (peak) A connection 0.15A 400V DC A connection 0.18A 400V DC B connection 0.25A 400V DC C connection		BSI approved (EN60065, EN41003, EN60950) 7395,7396
AQW254(A)		1-pole 0.16A 400V AC (peak) 0.16A 400V DC 2-poles 0.12A 400V AC (peak) 0.12A 400V DC		1-pole 0.16A 400V AC (peak) 0.16A 400V DC 2-poles 0.12A 400V AC (peak) 0.12A 400V DC		
AQW654(A)	1-pole 0.16A 400V AC (peak) 0.16A 400V DC 2-poles 0.12A 400V AC (peak) 0.12A 400V DC	1-pole 0.16A 400V AC (peak) 0.16A 400V DC 2-poles 0.12A 400V AC (peak) 0.12A 400V DC				
AQW454(A)	1-pole 0.16A 400V AC (peak) 0.16A 400V DC 2-poles 0.12A 400V AC (peak) 0.12A 400V DC	1-pole 0.16A 400V AC (peak) 0.16A 400V DC 2-poles 0.12A 400V AC (peak) 0.12A 400V DC				

## • PhotoMOS (PD type)

Item	UL/C-UL (Recognized)		CSA (Certified)		Remarks
	File No. (Standard No.)	Contact rating	File No. (Standard No.)	Contact rating	
AQY272(A)	E43149 (UL508)	2A60V AC (peak) 2A60V DC	Certified by C-UL	2A60V AC (peak) 2A60V DC	
AQY277(A)		1.3A100V AC (peak) 1.3A100V DC		1.3A100V AC (peak) 1.3A100V DC	
AQY275(A)		0.65A200V AC (peak) 0.65A200V DC		0.65A200V AC (peak) 0.65A200V DC	
AQY274(A)		0.35A400V AC (peak) 0.35A400V DC		0.35A400V AC (peak) 0.35A400V DC	

# Standards Chart

## • PhotoMOS (RF type)

Item		UL/C-UL (Recognized)		CSA (Certified)		Remarks
		File No. (Standard No.)	Contact rating	File No. (Standard No.)	Contact rating	
AC/DC	AQV221(A)	E43149 (UL508)	0.08A 40V AC (peak) A connection 0.08A 40V DC A connection 0.08A 40V DC B connection 0.12A 40V DC C connection	Certified by C-UL	0.08A 40V AC (peak) A connection 0.08A 40V DC A connection 0.09A 40V DC B connection 0.12A 40V DC C connection	
	AQV225(A)		0.05A 80V AC (peak) A connection 0.05A 80V DC A connection 0.06A 80V DC B connection 0.075A 80V DC C connection		0.05A 80V AC (peak) A connection 0.05A 80V DC A connection 0.06A 80V DC B connection 0.075A 80V DC C connection	
	AQV221N(A)		0.15A 40V AC (peak) A connection 0.15A 40V DC A connection 0.18A 40V DC B connection 0.25A 40V DC C connection		0.15A 40V AC (peak) A connection 0.15A 40V DC A connection 0.18A 40V DC B connection 0.25A 40V DC C connection	
	AQV227N(A)		0.07A 200V AC (peak) A connection 0.07A 200V DC A connection 0.08A 200V DC B connection 0.10A 200V DC C connection		0.07A 200V AC (peak) A connection 0.07A 200V DC A connection 0.08A 200V DC B connection 0.10A 200V DC C connection	
	AQV224N(A)		0.05A 400V AC (peak) A connection 0.05A 400V DC A connection 0.06A 400V DC B connection 0.08A 400V DC C connection		0.05A 400V AC (peak) A connection 0.05A 400V DC A connection 0.06A 400V DC B connection 0.08A 400V DC C connection	
	AQW227N(A)		1-pole 0.07A 200V AC (peak) 0.07A 200V DC 2-poles 0.05A 200V AC (peak) 0.05A 200V DC		1-pole 0.07A 200V AC (peak) 0.07A 200V DC 2-poles 0.05A 200V AC (peak) 0.05A 200V DC	
	AQW224N(A)		1-pole 0.05A 400V AC (peak) 0.05A 400V DC 2-poles 0.04A 400V AC (peak) 0.04A 400V DC		1-pole 0.05A 400V AC (peak) 0.05A 400V DC 2-poles 0.04A 400V AC (peak) 0.04A 400V DC	

## • PhotoMOS (Power type)

Item		UL/C-UL (Recognized)		CSA (Certified)		Remarks
		File No. (Standard No.)	Contact rating	File No. (Standard No.)	Contact rating	
AC/DC	AQZ202	E43149 (UL508)	3.0A 60V AC (peak) 3.0A 60V DC	Certified by C-UL	3.0A 60V AC (peak) 3.0A 60V DC	
	AQZ205		2.0A 100V AC (peak) 2.0A 100V DC		2.0A 100V AC (peak) 2.0A 100V DC	
	AQZ207		1.0A 200V AC (peak) 1.0A 200V DC		1.0A 200V AC (peak) 1.0A 200V DC	
	AQZ204		0.5A 400V AC (peak) 0.5A 400V DC		0.5A 400V AC (peak) 0.5A 400V DC	
DC	AQZ102		4.0A 60V DC		4.0A 60V DC	
	AQZ105		2.6A 100V DC		2.6A 100V DC	
	AQZ107		1.3A 200V DC		1.3A 200V DC	
	AQZ104		0.7A 400V DC		0.7A 400V DC	
AC/DC	AQZ404	0.5A 400V AC (peak) 0.5A 400V DC	0.5A 400V AC (peak) 0.5A 400V DC			

## • PhotoMOS (Power voltage sensitive type)

Item		UL/C-UL (Recognized)		CSA (Certified)		Remarks
		File No. (Standard No.)	Contact rating	File No. (Standard No.)	Contact rating	
AC/DC	AQZ202D	E43149 (UL508)	2.7A 60V AC (peak) 2.7A 60V DC	Certified by C-UL	2.7A 60V AC (peak) 2.7A 60V DC	
	AQZ205D		1.8A 100V AC (peak) 1.8A 100V DC		1.8A 100V AC (peak) 1.8A 100V DC	
	AQZ207D		0.9A 200V AC (peak) 0.9A 200V DC		0.9A 200V AC (peak) 0.9A 200V DC	
	AQZ204D		0.45A 400V AC (peak) 0.45A 400V DC		0.45A 400V AC (peak) 0.45A 400V DC	

## • Photovoltaic MOSFET driver

Item		UL/C-UL (Recognized)		CSA (Certified)		Remarks
		File No. (Standard No.)	Contact rating	File No. (Standard No.)	Contact rating	
APV2111V (SSOP)		E191218 (UL1577)	—	—	—	
APV2121S (SOP)			—	—	—	
APV1121S (SOP)			—	—	—	
APV1122 (DIP6)			—	—	—	

## Solid State Relays

### Phototriac Coupler

Item	UL (Recognized)		CSA (Certified)		TÜV (Certified)		Remarks
	File No. (Standard No.)	Contact rating	File No. (Standard No.)	Contact rating	File No. (Standard No.)	Contact rating	
zero-cross type Non zero-cross type	E191218 (UL1577)	SOP Type: 50mA 600V AC (peak) DIP Type: 100mA 600V AC (peak)	Certified by C-UL		—	—	VDE approved (Standard part numbers don't have VDE markings.)

### • AQ-H

Item	UL (Recognized)		CSA (Certified)		TÜV (Certified)		Remarks
	File No. (Standard No.)	Contact rating	File No. (Standard No.)	Contact rating	File No. (Standard No.)	Contact rating	
0.3A type 0.6A type 0.9A type 1.2A type	E191218 (UL1577)	0.3A 600V AC (peak) 0.6A 600V AC (peak) 0.9A 600V AC (peak) 1.2A 600V AC (peak)	Certified by C-UL		—	—	VDE approved

### • AQ-G

Item	UL (Recognized)		CSA (Certified)		TÜV (Certified)		Remarks
	File No. (Standard No.)	Contact rating	File No. (Standard No.)	Contact rating	File No. (Standard No.)	Contact rating	
1A type 2A type	E43149 (UL508)	1A 240V AC 2A 240V AC	Certified by C-UL		—	—	VDE approved

### • AQ-E

Item	UL (Recognized)		CSA (Certified)		TÜV (Certified)		Remarks
	File No. (Standard No.)	Contact rating	File No. (Standard No.)	Contact rating	File No. (Standard No.)	Contact rating	
AC type DC type	E43149 (UL508)	1A 250V AC 3A 60V DC	Certified by C-UL		—	—	VDE approved

### • AQ-C

Item	UL (Recognized)		CSA (Certified)		TÜV (Certified)		Remarks
	File No. (Standard No.)	Contact rating	File No. (Standard No.)	Contact rating	File No. (Standard No.)	Contact rating	
AC output type DC output type	E43149 (UL508)	1A 125,250V AC	LR26550 (C22.2 No.14)	1A 125,250V AC	Nr.BL9710 13461 136 (EN60950)	—	
		1A 60V DC		1A 60V DC		—	
AC input type		25mA 32V DC Input 80 to 250V AC		25mA 32V DC Input 80 to 250V AC		—	
DC input type		25mA 32V DC Input 3 to 32V DC		25mA 32V DC Input 3 to 32V AC		—	

### • AQ1

Item	UL (Recognized)		CSA (Certified)		TÜV (Certified)		Remarks
	File No. (Standard No.)	Contact rating	File No. (Standard No.)	Contact rating	File No. (Standard No.)	Contact rating	
DC output type	1A type	1A 10/200V DC	LR26550 (C22.2 No.0, C22.2 No.14, C22.2 No.55)	1A 200V DC	Nr.BL9710 13641 136 (EN60950) (Standard part numbers don't have VDE markings.)	—	
	2A type	2A 3/60V DC		2A 60V DC		—	
AC output zero-cross type	2A type	2A 125, 250V AC FLA 1A 125, 250V AC LRA 6A 125, 250V AC 2A 125V AC "L"	LR26550 (C22.2 No.0, C22.2 No.14, C22.2 No.55)	2A 125, 250V AC FLA 1A 125, 250V AC LRA 6A 125, 250V AC 2A 125V AC "L"	—	—	
	5A type	5A 125, 250V AC FLA 2.5A 125, 250V AC LRA 15A 125, 250V AC 5A 125V AC "L"		5A 125, 250V AC FLA 2.5A 125, 250V AC LRA 15A 125, 250V AC 5A 125V AC "L"		—	

### • AQ-B

Item	UL (Recognized)		CSA (Certified)		TÜV (Certified)		Remarks
	File No. (Standard No.)	Contact rating	File No. (Standard No.)	Contact rating	File No. (Standard No.)	Contact rating	
1A type	E43149 (UL508)	1A 125,250V AC	LR48894M14 (C22.2 No.950)	1A 125,250V AC	Nr.R75168 Nr.R85137 (Reinforced type) (EN60950)	1A 125,250V AC	
2A type		2A 125,250V AC		2A 125,250V AC		2A 125,250V AC	



# Standards Chart

## • AQ8

Item	UL (Recognized)		CSA (Certified)		TÜV (Certified)		Remarks
	File No. (Standard No.)	Contact rating	File No. (Standard No.)	Contact rating	File No. (Standard No.)	Contact rating	
2A type	E95895 (UL508)	2A 125, 250V AC FLA 1A 125, 250V AC LRA 6A 125, 250V AC 2A 125V AC "L"	LR26550 (C22.2 No.14)	2A 125, 250V AC FLA 1A 125,250V AC LRA 6A 125,250V AC 2A 125V AC "L"	Nr.9112 1645 569 (EN60950, VDE0884, VDE0805)	2A 125,250V AC FLA 1A 125,250V AC LRA 6A 125,250V AC 2A 125V AC "L"	VDE approved (Standard part numbers don't have VDE markings.)
3A type		3A 125, 250V AC FLA 1.5A 125, 250V AC LRA 9A 125, 250V AC 3A 125V AC "L"		3A 125, 250V AC FLA 1.5A 125, 250V AC LRA 9A 125, 250V AC 3A 125V AC "L"		3A 125, 250V AC FLA 1.5A 125, 250V AC LRA 9A 125, 250V AC 3A 125V AC "L"	

## • AQ-F

Item	UL (Recognized)		CSA (Certified)		TÜV (Certified)		Remarks
	File No. (Standard No.)	Contact rating	File No. (Standard No.)	Contact rating	File No. (Standard No.)	Contact rating	
AC output zero-cross type	E43149 (UL508)	2A 250V AC	LR26550 (C22.2 No.0, C22.2 No.14)	2A 250V AC	—	—	
3A type		3A 250V AC		3A 250V AC		—	
DC output type	2A type	2A 60V DC	2A 60V DC	—	—	—	
3A type	3A 60V DC	3A 60V DC	3A 60V DC	—	—	—	

## • AQ-N

Item	UL (Recognized)		CSA (Certified)		TÜV (Certified)		Remarks
	File No. (Standard No.)	Contact rating	File No. (Standard No.)	Contact rating	File No. (Standard No.)	Contact rating	
10A type	(Pending)	10A 75 to 250V AC	(C-UL pending)	(Pending)		10A 75 to 250V AC	
15A type		15A 75 to 250V AC				15A 75 to 250V AC	
20A type		20A 75 to 250V AC				20A 75 to 250V AC	
25A type		25A 75 to 250V AC				25A 75 to 250V AC	
40A type		40A 75 to 250V AC				40A 75 to 250V AC	

## • AQ-R

Item	UL (Recognized)		CSA (Certified)		TÜV (Certified)		Remarks
	File No. (Standard No.)	Contact rating	File No. (Standard No.)	Contact rating	File No. (Standard No.)	Contact rating	
10A type	E43149 (UL508)	10A 125,250V AC	LR48894M19 (C22.2 No.14)	10A 125,250V AC	Nr.R75169 Nr.R85136 (Reinforced type) (EN60950)	10A 125,250V AC	
15A type		15A 125, 250V AC		15A 125, 250V AC		15A 125, 250V AC	
20A type		20A 125, 250V AC		20A 125, 250V AC		20A 125, 250V AC	
30A type		30A 250V AC	Certified by C-UL	—			
40A type		40A 250V AC					

## • AQ-K

Item	UL (Recognized)		CSA (Certified)		TÜV (Certified)		Remarks
	File No. (Standard No.)	Contact rating	File No. (Standard No.)	Contact rating	File No. (Standard No.)	Contact rating	
15A type	E43149 (UL508)	15A 250V AC	Certified by C-UL		Nr. R50024471 (EN60947) *Breakdown voltage 2,500V only	15A 250V AC	
25A type		25A 250V AC				25A 250V AC	

## • I/O

Item	UL (Recognized)		CSA (Certified)		TÜV (Certified)		Remarks
	File No. (Standard No.)	Contact rating	File No. (Standard No.)	Contact rating	File No. (Standard No.)	Contact rating	
AC output	E43149 (UL508)	2A 125, 250V AC input 3-15V, 4-15V, 10-32V	LR26550 (C22.2 No.14)	2A 125, 250V AC input 3-15V, 4-15V, 10-32V	—	—	
DC output		2A 60V DC 1A 200V DC input 3-15V, 4-15V,10-32V		2A 60V DC 1A 200V DC input 3-15V, 4-15V,10-32V		—	
AC input		25mA 30V DC input 80-140V AC, 160-280V AC		25mA 30V DC input 60-140V AC, 160-200V AC		—	
DC input		25mA 30V DC input 3-32V DC		25mA 30V DC input 3-32V DC		—	

### Notes:

• For UL/CSA recognized type s, add suffix "9".

The standard models conform to the UL/CSA standard.

There is no need to add "9" at the end of the part No.

All types of PhotoMOS Relays, AQ-F Solid state Relays, AQ-B Solid state Relays, AQ-C Solid state Relays, AQ8 Solid state Relays

• For TÜV recognized type s, add suffix "2".

## Interface terminal

Item	UL (Recognized)		CSA (Certified)		VDE (Certified)		TV rating (UL/CSA)		Remarks
	File No. (Standard No.)	Recognized	File No. (Standard No.)	Certified	File No. (Standard No.)	Certified	File No. (Standard No.)	Certified	
RT-3 Unit Relay	E148103 C-UL approved	For input 12V, 24V DC For output 3A 250V AC, 3A 30V DC	—	Certified by C-UL	—	—	—	—	
RT-2 relay terminal	E146103	For input 12V, 24V DC For output (connector side) 12V, 24V DC For output (terminal side) 2A 250V AC, 2A 30V DC	LR77753	For input 12V, 24V DC For output (connector side) 12V, 24V DC For output (terminal side) 2A 250V AC, 2A 30V DC	—	—	—	—	
PC relay terminal/ PC terminal	E148103	For input 12V, 24V DC 100/110V, 200/220V AC For output 3A 12V, 24V DC 100/110V, 200/220V AC	LR77753	For input 12V, 24V DC 100/110V, 200/220V AC For output 5A 12V, 24V DC 100/110V, 200/220V AC	—	—	—	—	
CT-2 connector terminal	E148103	1A 125V AC	LR77753	1A 125V AC	—	—	—	—	

## ISO14001 certificate of approval

Since the establishment of the "Matsushita Electric Works Global Environmental Charter" in 1992, we are set to unite in a concerted effort toward making Matsushita Electric Works a company capable of sustainable development by striking the right balance between our commitments to the environment, the economy, and society.

Regarding environmental conservation, we are fully committed to the complete elimination of freon and trichloroethylene. In energy-related efforts, we are developing technology to create energy-saving products, and for natural resources, we are working to eliminate industrial waste and to develop recycling technology. Our goal is peaceful co-existence with our global society.

### Matsushita Electric Works Environmental Charter

#### ■ Obligations of the Manufacturer

- To provide products and services useful to society
- To fulfill social responsibilities
- To pursue corporate logic

#### ■ Global Co-existence

- Conservation of the global environment
- Protection of resources

#### ■ Co-existence With Society

- Contributing to our global society



## ISO9001 certificate of approval

Our Switching Device Division, which handles from development to production and marketing, has been approved for certification of the ISO9001 quality assurance standards established by the International Standards Organization (ISO).

On June 29, 1993, this achievement was officially registered by the certification organizations UKAS of the United Kingdom and RVA of the Netherlands. On January 17, 1995, we were also accredited by DAR of Germany and JAS-ANZ of New Zealand. This comprehensive certification covers all fields from mechanical to semiconductor types relays.



## QS-9000 certificate of approval

Our Switching Device Division has been accredited for QS-9000, covering our quality management system for an entire spectrum of automotive products ranging from mechanical to semiconductor relays.

QS-9000 is a required component of quality systems and includes independent requirements by the Big 3 of the U.S. automotive world, GM, Ford, and Chrysler. It calls for a comprehensive quality management system that includes CS, cost performance, ongoing improvement, and many other aspects of quality management.

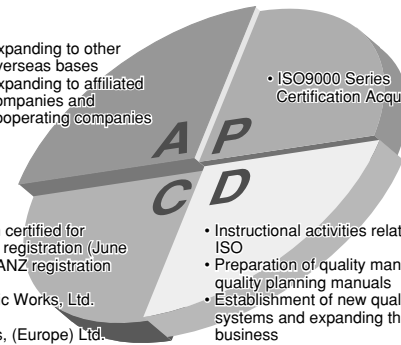
#### ■ Certification Status

- Switching Device Division approved
- Obihiro Matsushita Electric Works, Ltd. approved
- Aromat Mexicana approved
- Thailand Matsushita Electric Works, Ltd. approved

### The Necessity and Pursuit of ISO Certification

- Expanding to other overseas bases
- Expanding to affiliated companies and cooperating companies

ISO9000 Series  
Certification Acquisition



- Switching Device Division certified for ISO9001 UKAS and RVA registration (June 29, 1993) DAR and JAS-ANZ registration (January 17, 1995)
- Obihiro Matsushita Electric Works, Ltd. certified for ISO9001
- Matsushita Electric Works, (Europe) Ltd. certified for ISO9001
- Matsushita Electric Works, (Europe) Ltd. AG German Factory certified for ISO9002
- Beijing Matsushita Automation Control Co., Ltd. certified for ISO9002
- Thailand Matsushita Electric Works, Ltd. certified for ISO9002
- Aromat Mexicana certified for ISO9002

- Instructional activities relating to ISO
- Preparation of quality manuals and quality planning manuals
- Establishment of new quality systems and expanding them to business operations
- Upgrading internal quality monitoring



### Advantages

- Strengthening and upgrading quality assurance organizational structures applicable on an international basis
- Technology can be accumulated and disseminated through documentation and records
- Leads to improved reliability of the manufacturer's quality and improved CS (customer satisfaction)