7 Technical Data

Dielectric strength

Circuit			Withstand voltage (at 50/60 Hz)		Rated Impulse withstand voltage U_{imp}
Main circuit			Between terminals, terminal group to earth	AC3500V for 1 minute	12kV
Control circuits	Auxiliary switches	For general service	Terminal group to earth	AC2500V for 1 minute	6kV
		For microload	Terminal group to earth	AC2000V for 1 minute	4kV
	Position switches		Terminal group to earth	AC2000V for 1 minute	4kV
	Over-current release (OCR)		Terminal group to earth	AC2000V for 1 minute	4kV
	Power supply for undervoltage/ reverse power trip function		Terminal group to earth	AC2500V for 1 minute	6kV
Other accessories			Terminal group to earth	AC2000V for 1 minute	4kV

Note: The values shown above are those measured on phase connections and cannot be applied to control terminals on the ACB.

Internal resistance and power consumption

• Standard Series

Type	AR208S	AR212S	AR216S	AR220S	AR325S	AR332S	AR440SB	AR440S	AR650S	AR663S
Rated current (A)	800	1250	1600	2000	2500	3200	4000	4000	5000	6300
DC internal resistance per pole (mΩ)	0.033	0.033	0.028	0.024	0.014	0.014	0.017	0.014	0.012	0.010
Power consumption for 3 poles (W)	64	155	215	288	263	430	816	672	900	1190

• High fault Series

Type	AR212H	AR216H	AR220H	AR316H	AR320H	AR325H	AR332H	AR420H	AR440H	AR663H
Rated current (A)	1250	1600	2000	1600	2000	2500	3200	2000	4000	6300
DC internal resistance per pole (mΩ)	0.024	0.024	0.024	0.014	0.014	0.014	0.014	0.014	0.014	0.010
Power consumption for 3 poles (W)	113	184	288	108	168	263	430	168	672	1190

Note: Above figures are based on the calculation of $3I^2R$. For more information please contact TERASAKI.

The max. rated current [I_n] depends on the main circuit terminal arrangement

Ambient temperature 40 °C

Based Standard	JIS C 8201-2-1 Ann.1 Ann.2 IEC60947-2, EN60947-2 AS3947.2			ANSI C37.13 NEMA, SG-3		
Type	Terminal arrangement			Terminal arrangement		
	Horizontal terminals	Vertical terminals	Front connections	Horizontal terminals	Vertical terminals	Front connections
AR208S	800	800	800	800	800	800
AR212S	1250	1250	1250	1250	1250	1250
AR216S	1600	1600	1600	1540	1600	1570
AR220S	2000	2000	2000	1670	2000	1830
AR325S	2430	2500	2500	2230	2500	2430
AR332S	2790	3200	3150	2700	3200	2890
AR440SB	—	4000	—	—	3310	—
AR440S	—	4000	—	—	3700	—
AR650S	—	5000	—	—	4700	—
AR663S	—	6300	—	—	5680	—
AR212H	1250	1250	—	1250	1250	—
AR216H	1600	1600	—	1540	1600	—
AR220H	2000	2000	—	1670	2000	—
AR316H	1600	1600	—	1600	1600	—
AR320H	2000	2000	—	2000	2000	—
AR325H	2430	2500	—	2230	2500	—
AR332H	2790	3200	—	2700	3200	—
AR420H	—	2000	—	—	※	—
AR440H	—	4000	—	—	3700	—
AR663H	—	6300	—	—	5680	—

Note 1: If different type of terminal arrangement are used for line and load sides refer to the ratings for the horizontal terminals.
Note 2: Front connection can not be specified with the different types of terminal arrangement for line and load sides.
※: Contact TERASAKI for the details.

Derating

• Standard Series

Based Standards	Ambient temperature (°C)	Type	AR208S	AR212S	AR216S	AR220S	AR325S	AR332S	AR440SB	AR440S	AR650S	AR663S
		Connecting bar sizes	2X50X5t	2X80X5t	2X100X5t	3X100X5t	2X100X10t	3X100X10t	4X150X10t	4X150X6t	3X200X10t	4X200X10t
JIS C 8201-2-1 Ann.1 Ann.2	40 (Standard ambient temperature)		800	1250	1600	2000	2500	3200	4000	4000	5000	6300
IEC60947-2 EN 60947-2 AS3947.2	45		800	1250	1600	2000	2500	3200	4000	4000	5000	6300
	50		800	1250	1600	2000	2500	3200	3940	4000	4950	6000
	55		800	1200	1540	1820	2500	2990	3820	3940	4710	5680
	60		800	1150	1460	1740	2400	2850	3690	3760	4450	5370
NEMA, SG-3 ANSI C37.13	40(Standard ambient temperature)		800	1250	1540	2000	2500	3200	3310	3700	4700	5680
	45		800	1190	1470	1960	2500	3010	3200	3580	4450	5370
	50		800	1130	1390	1860	2440	2860	3100	3470	4180	5050
	55		790	1070	1310	1750	2300	2690	2980	3350	3900	4710
	60		740	1000	1230	1640	2150	2520	2870	3140	3610	4350

Note: The values are applicable for both Draw-out type and Fixed type.
The values of AR208S, AR212S and AR216S are for horizontal terminals on both line and load side.
The values of AR220S, AR325S, AR332S, AR440SB, AR440S, AR650S and AR663S are for vertical terminals on both line and load side.
Above figures are subject to the design of the enclosure and rating of busbar.

• High fault Series

Based Standards	Ambient temperature (°C)	Type	AR212H	AR216H	AR220H	AR316H	AR320H	AR325H	AR332H	AR420H	AR440H	AR663H
		Connecting bar sizes	2X80X5t	2X100X5t	3X100X5t	2X100X5t	3X100X5t	2X100X10t	3X100X10t	3X100X5t	4X150X6t	4X200X10t
JIS C 8201-2-1 Ann.1 Ann.2	40 (Standard ambient temperature)		1250	1600	2000	1600	2000	2500	3200	2000	4000	6300
IEC60947-2 EN 60947-2 AS3947.2	45		1250	1600	2000	1600	2000	2500	3200	2000	4000	6300
	50		1250	1600	2000	1600	2000	2500	3200	2000	4000	6000
	55		1250	1600	1820	1600	2000	2500	2990	2000	3940	5680
	60		1250	1550	1740	1600	2000	2400	2850	2000	3760	5370
NEMA, SG-3 ANSI C37.13	40(Standard ambient temperature)		1250	1600	2000	1600	2000	2500	3200	2000	3700	5680
	45		1250	1600	1960	1600	2000	2500	3010	2000	3580	5370
	50		1250	1600	1860	1600	2000	2440	2860	2000	3470	5050
	55		1250	1510	1750	1600	1950	2300	2690	2000	3350	4710
	60		1240	1420	1640	1550	1830	2150	2520	2000	3140	4350

Note: The values are applicable for both Draw-out type and Fixed type.
The values are for vertical terminals on both line and load side.
Above figures are subject to the design of the enclosure and rating of busbar.