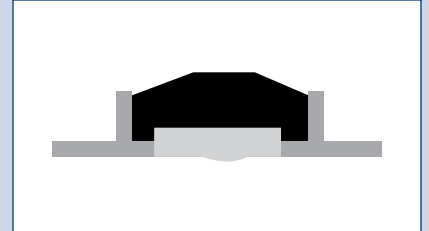


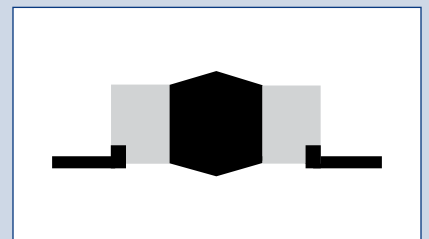
STYLE MPSB

Double-acting three piece piston seal. 70 Durometer Nitrile with fabric reinforced Nitrile and Nylon guide rings. The sealing action is effected by the fabric reinforced Nitrile member at the dynamic side. Lubricants such as oil and grease are able to penetrate the fabric and allow the seal to be highly wear resistant. Can easily be to one piece pistons.



STYLE MPSA-59

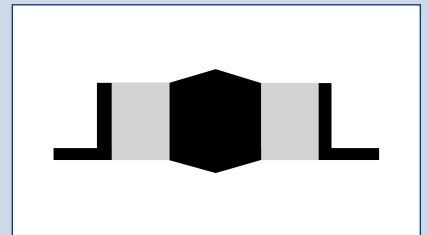
Double-acting three piece piston seal. 70 Durometer Nitrile with fabric reinforced Nitrile and Nylon guide rings. Consists of a solid rubber element that is reinforced with fabric on both sides. This gives the seal excellent resistance to pressure surges.



STYLE MPSA-58

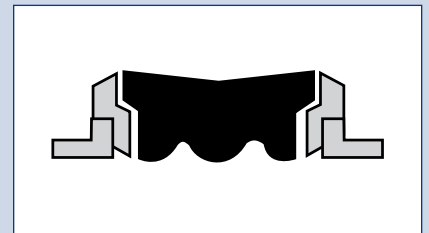
Double-acting three piece piston seal. 70 Durometer Nitrile with fabric reinforced Nitrile and Nylon guide rings. Heavy duty seal for multi-piece pistons. The robust profile and the sturdy right angle of the back-up/support rings give the seal high resistance to peak pressures and pressure surges.

Rated to 7500 psi.



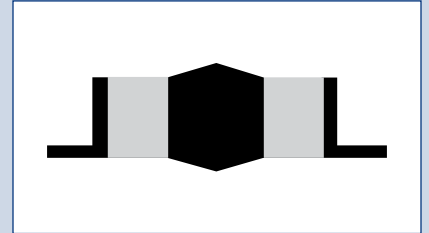
STYLE MPSA

Double-acting five piece piston seal. 70 Durometer Nitrile with Hytrel back-up rings and Nylon guide rings. The hardness of the materials used in the construction of each component of the seal increases from the inside component to the outside component. As a result, the performance of each individual component is optimized in performing the individual functions of sealing, bridging the gap, and guidance within the cylinder tube.



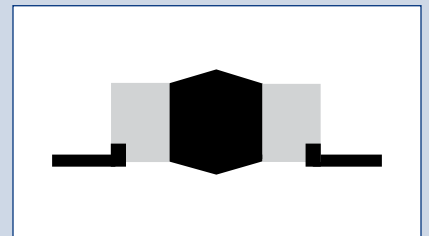
STYLE PSA-58

Style PSA-58 piston seals combine a heavy duty, fabric reinforced seal with two polyacetal "L" bearings. This construction allows the seal to withstand pressures up to 5,000 PSI. "L" bearings also react to pressure to prevent extrusion and support the piston. For 2-piece pistons.



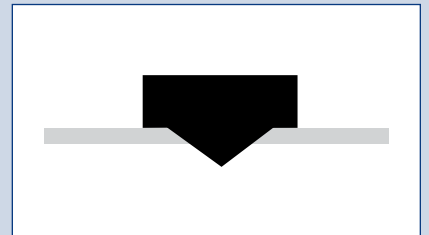
STYLE PSA-59

This style is designed for 2 piece piston. The seal is a molded Nitrile rubber element with bonded rubberized fabric reinforcement and two anti-extrusion polyacetal bearings.



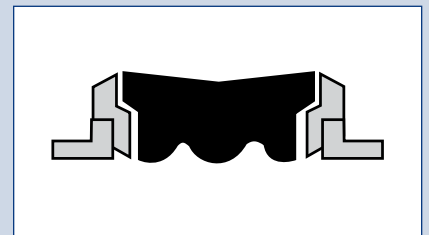
STYLE PSA-65

Compact and easy to install, the Style PSA-65 piston seal is a simple and economical design for pressures up to 3,000 PSI. The assembly consists of a nitrile rubber seal and two polyacetal bearings to support the piston. For 1-piece pistons.



STYLE PSA

Designed to fit on one or two piece pistons, this piston seal employs a nitrile seal for high sealability, nylon split back-ups for extrusion resistance, and two split bearing rings. No further support bearings required.



Style MPSB

DMR Part Number	OD	Od1	Od2	L1	L2
MPSB-032B	32	24	29	10	4
MPSB-35	35	24	31	15.5	3.2
MPSB-45	45	34	41	15.5	3.2
MPSB-050A	50	38	46	20.5	4.2
MPSB-060B	60	48	56	20.5	4.2
MPSB-70	70	58	66	20.5	4.2
MPSB-80	80	66	76	22.5	5.2
MPSB-090B	90	76	86	22.5	5.2
MPSB-100F	100	86	96	22.5	5.2
MPSB-110B	110	96	106	22.5	5.2
MPSB-120B	120	106	116	22.5	5.2
MPSB-125F	125	108	121	26.5	7.2
MPSB-150	150	133	146	26.5	7.2
MPSB-160	160	143	156	26.5	7.2
MPSB-180	180	163	176	26.5	7.2

Style MPSA-59

DMR Part Number	OD	Od1	Od2	L1	L2
MPSA-59-40	40	24	35.4	18	6.35
MPSA-59-50	50	34	45.4	18	6.35
MPSA-59-60	60	44	55.4	18	6.35
MPSA-59-63	63	47	58.4	19	6.35
MPSA-59-65	65	50	60.4	18	6.35
MPSA-59-70	70	50	64.15	22	6.35
MPSA-59-75	75	55	69.15	22	6.35
MPSA-59-80	80	60	74.15	22	6.35
MPSA-59-080A	80	60	74.15	31	6.35
MPSA-59-85	85	65	79.15	22	6.35
MPSA-59-90	90	70	84.15	22	6.35
MPSA-59-100	100	80	94.15	25	6.35
MPSA-59-100A	100	75	93.15	22	6.35
MPSA-59-110	110	90	104.1	25	6.35
MPSA-59-120	120	100	114.1	25	6.35
MPSA-59-125	125	100	118.1	25	6.35
MPSA-59-130	130	105	123	25	6.35

Style MPSA-58

DMR Part Number	OD	Od1	Od2	L1	L2
MPSA-58-40	40	25	34.8	24	6
MPSA-58-050A	50	35	44.8	24	6
MPSA-58-60	60	40	53.8	31	7
MPSA-58-063B	63	48	57.8	24	6
MPSA-58-70	70	50	63.8	31	7
MPSA-58-080A	80	60	73.8	31	7
MPSA-58-090A	90	70	83.8	31	7
MPSA-58-100	100	80	93.8	31	7
MPSA-58-110	110	90	103.8	31	7
MPSA-58-120	120	100	113.8	31	7
MPSA-58-125A	125	100	118.8	38	9.5
MPSA-58-125C	125	100	116.8	45	12.7
MPSA-58-140B	140	120	133.8	31	7
MPSA-58-200	200	170	193	35.4	6.35

Style MPSA

DMR Part Number	OD	Od1	Od2	L1	L2
MPSA-20	20	11	17	13.5	2.1
MPSA-22	22	13	19	13.5	2.1
MPSA-25	25	13	22	12.5	4
MPSA-025A	25	15	21.4	16.4	6.35
MPSA-025B	25	16	22	13.5	2.1
MPSA-28	28	19	25	13.5	2.1
MPSA-030A	30	21	27	13.5	2.1
MPSA-32	32	22	27.4	16.3	6.35
MPSA-032A	32	22	27.4	12.5	4
MPSA-032C	32	22	28	15.5	2.6
MPSA-032D	32	24	28	15.5	3.2
MPSA-35	35	25	31.4	16.4	6.35
MPSA-035A	35	25	31	15.5	2.6
MPSA-040D	40	26	36	15.5	2.6
MPSA-040E	40	30	35.4	16.4	6.35
MPSA-040F	40	30	37	12.5	4
MPSA-040G	40	32	36	15.5	3.2
MPSA-45	45	35	40.4	16.4	6.35
MPSA-045A	45	29	40.4	18.4	6.35
MPSA-045B	45	31	41	15.5	2.6
MPSA-50	50	34	45.4	18.4	6.35
MPSA-050A	50	38	46	20.5	4.2
MPSA-050B	50	40	47	12.5	4
MPSA-050D	50	34	46	20.5	3.1
MPSA-55	55	39	50.4	18.4	6.4
MPSA-055B	55	39	51	20.5	3.1
MPSA-60	60	44	55.4	18.4	6.35
MPSA-060B	60	48	56	20.5	4.2
MPSA-060C	60	44	56	20.5	3.1
MPSA-63	63	47	58.4	19.4	6.35
MPSA-063A	63	51	59	20.15	4.2
MPSA-063B	63	53	60	12.5	4
MPSA-063E	63	47	58.4	18.4	6.35

Style MPSA

DMR Part Number	OD	Od1	Od2	L1	L2
MPSA- 65	65	50	60.4	18.4	6.35
MPSA- 065A	65	49	61	20.5	3.1
MPSA- 70	70	50	64.2	22.4	6.35
MPSA- 070A	70	58	66	20.15	4.2
MPSA- 070B	70	54	66	20.5	3.1
MPSA- 75	75	55	69.2	22.4	6.35
MPSA- 075A	75	59	71	20.5	3.1
MPSA- 80	80	60	74.2	22.4	6.35
MPSA- 080A	80	66	76	22.5	5.2
MPSA- 080C	80	62	76	22.5	3.6
MPSA- 080D	80	60	75	25	6.35
MPSA- 85	85	65	79.2	22.4	6.35
MPSA- 90	90	70	84.2	22.4	6.35
MPSA- 090B	90	76	86	22.5	5.2
MPSA- 090C	90	72	86	22.5	3.6
MPSA- 92	92	82	88	12.5	6.35
MPSA- 95	95	75	89.15	22.4	6.35
MPSA- 100	100	75	93.2	22.4	6.35
MPSA- 100A	100	85	96	19.5	5
MPSA- 100B	100	80	95	25	6.3
MPSA- 100E	100	82	96	22.5	3.6
MPSA- 100F	100	86	96	22.5	5.2
MPSA- 105	105	80	98.1	22.5	6.35
MPSA- 105A	105	92.5	98.8	14.3	6.35
MPSA- 110	110	85	103.1	22.4	6.35
MPSA- 110A	110	85	103	25	6.35
MPSA- 110B	110	96	106	22.5	5.2
MPSA- 110D	110	92	106	22.5	3.6
MPSA- 115	115	90	108.1	22.4	6.35
MPSA- 115B	115	97	111	22.5	3.6
MPSA- 120	120	95	113.1	22.4	6.35
MPSA- 120B	120	106	116	22.5	5.2
MPSA- 125	125	100	118	25.4	6.35

DMR Part Number	OD	Od1	Od2	L1	L2
MPSA- 125A	125	105	120	24.5	6.35
MPSA- 125E	125	103	121	26.5	5.1
MPSA- 125F	125	108	121	26.5	7.2
MPSA- 130	130	105	122.6	25.4	9.52
MPSA- 135	135	110	128.1	25.4	6.35
MPSA- 140	140	115	132.6	25.4	9.52
MPSA- 140A	140	115	131.7	45	12.7
MPSA- 140B	140	115	133	25.4	6.35
MPSA- 140C	140	120	135	25	6.35
MPSA- 140E	140	118	136	26.5	5.1
MPSA- 140F	140	123	136	26.5	7.2
MPSA- 150	150	125	142.6	25.4	9.52
MPSA- 150A	150	125	141.7	45	12.7
MPSA- 150D	150	125	143	25.5	6.35
MPSA- 160	160	135	152.6	25.4	9.5
MPSA- 160A	160	130	153	25.4	6.35
MPSA- 160B	160	140	155	25	6.35
MPSA- 170	170	145	161.7	25.3	12.7
MPSA- 170A	170	140	163	25	6.35
MPSA- 175B	175	150	166.7	25.4	12.7
MPSA- 180	180	155	171.7	25.4	12.7
MPSA- 180A	180	150	173	35.4	6.35
MPSA- 190	190	165	181.7	25.4	12.7
MPSA- 200	200	175	191.6	25.4	12.7
MPSA- 200B	200	175	191.6	45	12.7
MPSA- 220A	220	195	211.6	25.7	12.7

Style PSA-58

DMR Part Number	A Bore Diameter	D Seal Groove WidthTol. +0.035/+0.025	D1 BearingGroove WidthTol. +0/+0.005	E Seal Groove Diameter	E1 Bearing Groove Diameter	F Piston Diameter
PSA-58-1000	1.000	0.596	0.182	0.625	0.865	0.865
PSA-58-1250	1.250	0.750	0.250	0.750	1.115	1.218
PSA-58-1375	1.375	0.750	0.250	0.875	1.241	1.343
PSA-58-1500	1.500	0.750	0.250	1.000	1.371	1.468
PSA-58-1625	1.625	0.937	0.250	1.000	1.428	1.562
PSA-58-1750	1.750	0.937	0.250	1.125	1.555	1.687
PSA-58-1875	1.875	0.937	0.250	1.250	1.679	1.812
PSA-58-2000	2.000	0.937	0.250	1.375	1.805	1.937
PSA-58-2000B	2.000	0.750	0.250	1.375	1.802	1.937
PSA-58-2250	2.250	0.937	0.250	1.625	2.055	2.187
PSA-58-2375	2.375	0.937	0.250	1.750	2.180	2.312
PSA-58-2500	2.500	0.937	0.250	1.875	2.305	2.437
PSA-58-2500A	2.500	0.750	0.254	1.875	2.321	2.437
PSA-58-2625	2.625	0.937	0.250	2.000	2.428	2.562
PSA-58-2750	2.750	1.187	0.250	2.000	2.485	2.687
PSA-58-3000	3.000	1.187	0.250	2.250	2.735	2.937
PSA-58-3000A	3.000	0.937	0.250	2.250	2.774	2.937
PSA-58-3000B	3.000	0.843	0.250	2.250	2.732	2.937

Style PSA-58

DMR Part Number	A Bore Diameter	D Seal Groove WidthTol. +0.035/+0.025	D1 BearingGroove WidthTol. +0/+0.005	E Seal Groove Diameter	E1 Bearing Groove Diameter	F Piston Diameter
PSA-58-3250	3.250	1.187	0.250	2.500	2.985	3.187
PSA-58-3500	3.500	1.187	0.250	2.750	3.235	3.437
PSA-58-3750	3.750	1.187	0.250	3.000	3.485	3.687
PSA-58-4000	4.000	1.187	0.250	3.250	3.735	3.937
PSA-58-4250	4.250	1.187	0.250	3.500	3.982	4.187
PSA-58-4500	4.500	1.500	0.375	3.500	4.234	4.437
PSA-58-4750	4.750	1.500	0.375	3.750	4.485	4.687
PSA-58-5000	5.000	1.500	0.375	4.000	4.735	4.937
PSA-58-5250	5.250	1.500	0.375	4.250	4.982	5.187
PSA-58-5500	5.500	1.500	0.375	4.500	5.236	5.437
PSA-58-5750	5.750	1.500	0.375	4.750	5.484	5.687
PSA-58-6000	6.000	1.500	0.375	5.000	5.736	5.937
PSA-58-6000A	6.000	1.250	0.254	5.000	5.728	5.954
PSA-58-6500	6.500	1.500	0.375	5.500	6.236	6.437
PSA-58-7000	7.000	1.500	0.375	6.000	6.736	6.937
PSA-58-8000	8.000	1.250	0.375	7.000	7.740	7.937
PSA-58-10000	10.00	1.250	0.375	9.000	9.740	9.937

Style PSA-59

DMR Part Number	A Bore Diameter	D Seal Groove WidthTol. +0.035/+0.025	D1 Bearing Groove WidthTol. +0/-0.005	E Seal Groove Diameter	E1 Bearing Groove Diameter	F Piston Diameter
PSA-59-1000A	1.000+0.006/-0	0.468	0.250	0.625±0.003	0.883+0/-0.002	0.964±0.003
PSA-59-1500	1.500+0.006/-0	0.625	0.250	1.000±0.003	1.360+0/-0.002	1.458±0.003
PSA-59-1625	1.625+0.006/-0	0.625	0.250	1.125±0.003	1.485+0/-0.002	1.583±0.003
PSA-59-1750	1.750+0.006/-0	0.750	0.250	1.125±0.003	1.570+0/-0.002	1.698±0.003
PSA-59-2125	2.125+0.007/-0	0.750	0.250	1.500±0.003	1.944+0/-0.003	2.074±0.004
PSA-59-2250	2.250+0.007/-0	0.750	0.250	1.625±0.003	2.069+0/-0.003	2.197±0.004
PSA-59-2375	2.375+0.007/-0	0.750	0.250	1.750±0.003	2.194+0/-0.003	2.322±0.004
PSA-59-2500A	2.500+0.007/-0	0.750	0.250	1.875±0.003	2.321+0/-0.003	2.437±0.004
PSA-59-2750	2.750+0.007/-0	0.750	0.250	2.000±0.004	2.522+0/-0.003	2.685±0.004
PSA-59-2750A	2.750+0.007/-0	0.937	0.250	2.000±0.004	2.522+0/-0.003	2.685±0.004
PSA-59-3000	3.000+0.007/-0	0.937	0.250	2.250±0.004	2.772+0/-0.003	2.935±0.004
PSA-59-3000A	3.000+0.007/-0	1.125	0.250	2.250±0.004	2.772+0/-0.003	2.935±0.004
PSA-59-3250	3.250+0.009/-0	0.937	0.250	2.500±0.004	3.021+0/-0.003	3.184±0.004
PSA-59-3500	3.500+0.009/-0	0.937	0.250	2.750±0.004	3.271+0/-0.003	3.434±0.004
PSA-59-4000	4.000+0.009/-0	0.937	0.250	3.250±0.004	3.770+0/-0.003	3.933±0.004
PSA-59-4500	4.500+0.009/-0	1.250	0.250	3.500±0.004	4.229+0/-0.003	4.422±0.005
PSA-59-5000	5.000+0.010/-0	1.250	0.250	4.000±0.004	4.728+0/-0.004	4.921±0.005
PSA-59-5500	5.500+0.010/-0	1.250	0.250	4.500±0.004	5.227+0/-0.004	5.420±0.005
PSA-59-6000	6.000+0.010/-0	1.250	0.250	5.000±0.005	5.726+0/-0.004	5.919±0.005
PSA-59-6500	6.500+0.010/-0	1.250	0.250	5.500±0.005	6.226+0/-0.004	6.419±0.005
PSA-59-7000	7.000+0.010/-0	1.250	0.250	6.000±0.005	6.724+0/-0.004	6.917±0.005
PSA-59-8000	8.000+0.011/-0	1.250	0.250	7.000±0.005	7.723+0/-0.005	7.915±0.006

Style PSA-65

DMR Part Number	A Bore Diameter	D Seal Groove WidthTol. +0.015/+0.005	D1 Bearing Groove WidthTol. +/- 0.005	E Seal Groove Diameter	E1 Bearing Groove Diameter	F Piston Diameter
PSA-65-1000	1.000 +0.004/-0	0.343	0.125	0.687 +0/-0.002	0.829 +0/-0.002	0.937 +0/-0.006
PSA-65-1250	1.250 +0.004/-0	0.343	0.125	0.943 +0/-0.002	1.079 +0/-0.002	1.187 +0/-0.006
PSA-65-1500	1.500 +0.004/-0	0.437	0.150	1.125 +0/-0.002	1.324 +0/-0.002	1.437 +0/-0.006
PSA-65-1750	1.750 +0.004/-0	0.437	0.150	1.375 +0/-0.002	1.574 +0/-0.002	1.687 +0/-0.006
PSA-65-2000	2.000 +0.005/-0	0.437	0.150	1.625 +0/-0.002	1.824 +0/-0.002	1.937 +0/-0.006
PSA-65-2250	2.250 +0.005/-0	0.437	0.150	1.875 +0/-0.002	2.075 +0/-0.003	2.187 +0/-0.006
PSA-65-2375	2.375 +0.005/-0	0.437	0.150	2.000 +0/-0.002	2.195 +0/-0.003	2.312 +0/-0.007
PSA-65-2500	2.500 +0.005/-0	0.437	0.150	2.125 +0/-0.003	2.325 +0/-0.003	2.437 +0/-0.007
PSA-65-2500A	2.500 +0.005/-0	0.625	0.255	2.000 +0/-0.003	2.325 +0/-0.003	2.437 +0/-0.007
PSA-65-2750	2.750 +0.005/-0	0.437	0.150	2.375 +0/-0.003	2.575 +0/-0.002	2.687 +0/-0.007
PSA-65-3000	3.000 +0.005/-0	0.437	0.150	2.625 +0/-0.003	2.825 +0/-0.003	2.937 +0/-0.007
PSA-65-3500	3.500 +0.006/-0	0.562	0.210	3.000 +0/-0.003	3.270 +0/-0.003	3.437 +0/-0.009
PSA-65-4000	4.000 +0.006/-0	0.562	0.210	3.500 +0/-0.003	3.770 +0/-0.003	3.937 +0/-0.009
PSA-65-5000	5.000 +0.006/-0	0.687	0.344	4.375 +0/-0.003	4.689 +0/-0.003	4.937 +0/-0.010
PSA-65-5500	5.500 +0.006/-0	0.687	0.344	4.875 +0/-0.004	5.188 +0/-0.004	5.437 +0/-0.010
PSA-65-6000	6.000 +0.006/-0	1.000	0.500	5.250 +0/-0.004	5.712 +0/-0.004	5.937 +0/-0.010
PSA-65-7000	7.000 +0.006/-0	1.000	0.500	6.250 +0/-0.004	6.712 +0/-0.004	6.937 +0/-0.010

Style PSA

DMR Part Number	A Bore Diameter	D Seal Groove WidthTol. +0.035/+0.025	D1 Bearing Groove WidthTol. +0/-0.005	E Seal Groove Diameter	E1 Bearing Groove Diameter	F Piston Diameter
PSA-1750	1.750+0.006/-0	0.750	0.250	1.125±0.003	1.569+0/-0.002	1.698±0.003
PSA-2000	2.000+0.007/-0	0.750	0.250	1.375±0.003	1.820+0/-0.002	1.948±0.004
PSA-2250	2.250+0.007/-0	0.750	0.250	1.625±0.003	2.069+0/-0.003	2.197±0.004
PSA-2375	2.375+0.007/-0	0.750	0.250	1.750±0.003	2.194+0/-0.003	2.322±0.004
PSA-2500	2.500+0.007/-0	0.750	0.250	1.875±0.003	2.318+0/-0.003	2.446±0.004
PSA-2750	2.750+0.007/-0	0.943	0.250	2.000±0.004	2.522+0/-0.003	2.685±0.004
PSA-3000	3.000+0.007/-0	0.943	0.250	2.250±0.004	2.771+0/-0.003	2.935±0.004
PSA-3250	3.250+0.009/-0	0.943	0.250	2.500±0.004	3.021+0/-0.003	3.184±0.004
PSA-3250A	3.250+0.009/-0	0.772	0.245	2.625±0.004	3.021+0/-0.003	3.184±0.004
PSA-3500	3.500+0.009/-0	0.943	0.250	2.750±0.004	3.270+0/-0.003	3.434±0.004
PSA-3500A	3.500+0.009/-0	0.772	0.295	2.850±0.004	3.272+0/-0.003	3.460±0.004
PSA-3750	3.750+0.009/-0	0.943	0.250	3.000±0.004	3.520+0/-0.003	3.683±0.004
PSA-4000	4.000+0.009/-0	0.943	0.250	3.250±0.004	3.770+0/-0.003	3.933±0.004
PSA-4000A	4.000+0.009/-0	1.375	0.425	3.250±0.004	3.770+0/-0.003	3.933±0.004
PSA-4000B	4.000+0.009/-0	0.772	0.245	3.375±0.004	3.772+0/-0.003	3.960±0.004
PSA-4500	4.500+0.009/-0	1.250	0.350	3.500±0.004	4.229+0/-0.003	4.422±0.005
PSA-4500A	4.500+0.009/-0	1.750	0.550	3.500±0.004	4.229+0/-0.003	4.422±0.005
PSA-5000	5.000+0.010/-0	1.250	0.400	4.000±0.004	4.709+0/-0.004	4.902±0.005
PSA-5000A	5.000+0.010/-0	0.960	0.290	4.250±0.004	4.772+0/-0.004	4.960±0.005
PSA-6000	6.000+0.010/-0	1.250	0.375	5.000±0.004	5.709+0/-0.004	5.902±0.005
PSA-6000A	6.000+0.010/-0	1.750	0.500	5.000±0.004	5.675+0/-0.004	5.900±0.005