

Mercury and Mechanical Vs. Solid State Relays

	Mercury:	Solid state:	EMR:
Contains no mercury	No	Yes	Yes
Provide air gap isolation:	Yes	No	Yes
Photo-coupled isolation of input to output	No	Yes	No
Can accommodate high inrush well	Yes	Yes	No
Does not have arcing	Yes	Yes	No
Quiet operation	Yes	Yes	No
Silent operation	No	Yes	No
Environmentally friendly	No	Yes	Yes
Can be mounted at any angle	No	Yes	Yes
Does not produce heat or require a heat sink	Yes	No	Yes
Available as a hybrid	No	Yes	Yes
Can be used in hazardous environments	Yes	Yes	Yes
Extremely fast switching	No	Yes	No
Is well suited for proportional power control	No	Yes	No
Can be used for phase angle control	No	Yes	No
Can be exported to other countries easily	No	Yes	Yes
RoHS	No	Yes	Yes
Millions of operations	Yes	Yes	No
Billions of operations	No	Yes	No
Contains no moving parts	No	Yes	No
Little to no leakage current/voltage w/o snubber	Yes	Yes	Yes
Has input currents as low as 2 mA	No	Yes	No
Has no inrush on input terminals	No	Yes	No
Current limited control input available	No	Yes	No
Fast switching time	No	Yes	No
Easily disposed of	No	Yes	Yes
Consumes minimal power, Input side	No	Yes	No
Consumes minimal power, output side	Yes	Yes	Yes
Consumes no power on output side	Yes	No	Yes
Can be used in variable power applications to save energy	No	Yes	No
Risk of fines due to improper handling and disposal	Yes	No	No
Universal acceptability globally	No	Yes	Yes
Easily compatible with industrial control components	No	Yes	Yes
Finger safe operation	No	Yes	Yes