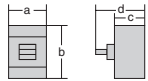


Moulded Case Circuit Breakers for DC750V-1000V

Frame size (A)	160	160	160	160				
Type	PVE160-SDL	PVS160-SDL	PVS160-SDH	PVS160-GDH				
Number of poles	3	3	4	4				
■ Ratings								
Rated current, A	25 (16-25)	50 (32-50)	50 (32-50)	50 (32-50)				
Calibrated at 45°C	32 (20-32)	63 (40-63)	63 (40-63)	63 (40-63)				
	40 (25-40)	100 (63-100)	100 (63-100)	100 (63-100)				
	63 (40-63)	125 (80-125)	125 (80-125)	125 (80-125)				
	80 (50-80)	160 (100-160)	160 (100-160)	160 (100-160)				
	100 (63-100)							
	125 (80-125)							
	160 (100-160)							
Rated insulation voltage [U _i] V	800	800	1000	1000				
Rated impulse withstand voltage [U _{imp}] kV	8	8	8	8				
■ Rated breaking capacity, kA								
JIS C 8201-2-1 Ann.1 Ann.2 DC	1000V	—	5/5	10/5				
IEC 60947-2 I _{cu} /I _{cs} ①②	750V	3/3	10/5	—				
■ External dimensions, mm								
	a	75	105	140	140			
	b	130+50×2 ⑰	165+55×2 ⑰	165+55×2 ⑰	165+55×2 ⑰			
	c	68	68	68	68			
	d	95	95	95	95			
Weight (● marked standard type) kg	0.8	1.5	1.9	1.9				
■ Connections and Mountings								
Front-connected (FC)	Terminal screws	●	●	●	●			
	With extension bars	○ (BAR)	○ (BAR)	○ (BAR)	○ (BAR)			
Rear-connected (RC)	Flat bar studs	○	○	○	○			
Plug-in (PM)	For switchboards	—	—	—	—			
	For distribution boards	—	—	—	—			
Draw-out type (DR)		—	—	—	—			
TemPlug70 (PG)		—	—	—	—			
TemPlug45B (PG4)		—	—	—	—			
DIN rail mount		—	—	—	—			
Clip-in chassis mount		—	—	—	—			
■ Accessories (optional) Symbol								
Interior	Auxiliary switch	A X	●	●	●	●		
	Alarm switch	A L	●	●	●	●		
	Shunt trips	S H	●	●	●	●		
	Undervoltage trips	U V	●	●	●	●		
	Motor operator	M C	—	●	●	●		
	External operating handle	Breaker-mounted	H B	●	●	●		
		Door-mounted (variable depth)	H P	●	●	●		
	Toggle extension	H A	—	—	—	—		
	Mechanical interlock	Slide type	M S	—	—	—	—	
		Rear-connected type	M B	—	—	—	—	
Link type		M L	—	—	—	—		
Wire type		M W	—	—	—	—		
Exterior	Toggle holder	H H	●	●	●	●		
	Toggle lock	H L	●	●	●	●		
	Terminal cover	For front-connected	C F	● ⑧	● ⑧	● ⑧	● ⑧	
		For rear-connected and plug-in	C R	● ⑧	● ⑧	● ⑧	● ⑧	
	Interpole barrier	B A	—	—	—	—		
	Terminal block for lead	T F	●	●	●	●		
Door flange	D F	●	●	●	●			
■ Standard specifications								
Overcurrent trip mechanism		Adj. thermal, fixed magnetic	Adj. thermal, fixed magnetic	Adj. thermal, fixed magnetic	Adj. thermal, fixed magnetic			
Colour of cover		Grey	Grey	Grey	Grey			
Trip button (Colour)		Yes (Red)	Yes (Red)	Yes (Red)	Yes (Red)			
Handle position indication (ON: Red, OFF: Green)		Yes	Yes	Yes	Yes			
Suitability for isolation		Yes	Yes	Yes	Yes			
Reverse connection		Yes	Yes	Yes	Yes			

Notes:

● : Standard. This configuration used unless otherwise specified. ○ : Optional standard. Specify when ordering. ● : "yes" or "available". — : "no" or "not available".

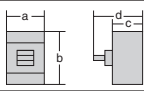
① : Connect 3poles or 4poles in series.

② : The time constant (L/R) of the circuit should be,
 less than 2.0ms nearby rated current
 less than 5ms for short circuit ≤ 10KA
 less than 10ms for short circuit ≤ 20KA
 less than 15ms for short circuit > 20KA

⑧ : Two terminal covers are supplied as standard. Be sure to install the terminal covers on Line side (ON side) and Load side (OFF side).

⑰ : + means the dimension of the terminal cover. See outline dimensions for details.

Moulded Case Circuit Breakers for DC750V-1000V

Frame size (A)	250	250	250					
Type	PVS250-SDL	PVS250-SDH	PVS250-GDH					
Number of poles	3	4	4					
■ Ratings								
Rated current, A	100 (63-100)	100 (63-100)	100 (63-100)					
Calibrated at 45°C	125 (80-125) 160 (100-160) 200 (125-200) 250 (160-250)	125 (80-125) 160 (100-160) 200 (125-200) 250 (160-250)	125 (80-125) 160 (100-160) 200 (125-200) 250 (160-250)					
Rated insulation voltage [U _i] V	800	1000	1000					
Rated impulse withstand voltage [U _{imp}] kV	8	8	8					
■ Rated breaking capacity, kA								
JIS C 8201-2-1 Ann.1 Ann.2 DC	1000V	5/5	10/5					
IEC 60947-2 I _{cu} /I _{cs} ①②	750V	10/5	—					
■ External dimensions, mm								
	a	105	140	140				
	b	165+55×2 ⑰	165+55×2 ⑰	165+55×2 ⑰				
	c	68	68	68				
	d	95	95	95				
Weight (● marked standard type) kg	1.5	1.9	1.9					
■ Connections and Mountings								
Front-connected (FC)	Terminal screws	●	●	●				
	With extension bars	○ (BAR)	○ (BAR)	○ (BAR)				
Rear-connected (RC)	Flat bar studs	○	○	○				
Plug-in (PM)	For switchboards	—	—	—				
	For distribution boards	—	—	—				
Draw-out type (DR)		—	—	—				
TemPlug70 (PG)		—	—	—				
TemPlug45B (PG4)		—	—	—				
DIN rail mount		—	—	—				
Clip-in chassis mount		—	—	—				
■ Accessories (optional) Symbol								
Interior	Auxiliary switch	A X	●	●	●			
	Alarm switch	A L	●	●	●			
	Shunt trips	S H	●	●	●			
	Undervoltage trips	U V	●	●	●			
	Motor operator	M C	●	●	●			
	External operating handle	Breaker-mounted	H B	●	●	●		
		Door-mounted (variable depth)	H P	●	●	●		
	Toggle extension	H A	—	—	—			
	Mechanical interlock	Slide type	M S	—	—	—		
		Rear-connected type	M B	—	—	—		
Link type		M L	—	—	—			
Wire type		M W	—	—	—			
Exterior	Toggle holder	H H	●	●	●			
	Toggle lock	H L	●	●	●			
	Terminal cover	For front-connected	C F	● ⑧	● ⑧	● ⑧		
		For rear-connected and plug-in	C R	● ⑧	● ⑧	● ⑧		
	Interpole barrier	B A	—	—	—			
	Terminal block for lead	T F	●	●	●			
	Door flange	D F	●	●	●			
■ Standard specifications								
Overcurrent trip mechanism		Adj. thermal, fixed magnetic	Adj. thermal, fixed magnetic	Adj. thermal, fixed magnetic				
Colour of cover		Grey	Grey	Grey				
Trip button (Colour)		Yes (Red)	Yes (Red)	Yes (Red)				
Handle position indication (ON: Red, OFF: Green)		Yes	Yes	Yes				
Suitability for isolation		Yes	Yes	Yes				
Reverse connection		Yes	Yes	Yes				

Notes:

● : Standard. This configuration used unless otherwise specified. ○ : Optional standard. Specify when ordering. ● : "yes" or "available". — : "no" or "not available".

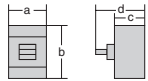
① : Connect 3poles or 4poles in series.

② : The time constant (L/R) of the circuit should be,
less than 2.0ms nearby rated current
less than 5ms for short circuit ≤ 10KA
less than 10ms for short circuit ≤ 20KA
less than 15ms for short circuit > 20KA

⑧ : Two terminal covers are supplied as standard. Be sure to install the terminal covers on Line side (ON side) and Load side (OFF side).

⑰ : + means the dimension of the terminal cover. See outline dimensions for details.

Moulded Case Circuit Breakers for DC750V-1000V

Frame size (A)	400		400		800		800	
Type	PVS400-NDL		PVS400-NDH		PVS800-NDL		PVS800-NDH	
Number of poles	3	4	4		3	4	4	
■ Ratings								
Rated current, A	250 (160-250)	250 (160-250)	250 (160-250)		630 (400-630)	630 (400-630)	630 (400-630)	
Calibrated at 45°C	400 (250-400)	400 (250-400)	400 (250-400)		800 (500-800)	800 (500-800)	800 (500-800)	
Rated insulation voltage [U _i] V	800	1150	1150		800	1150	1150	
Rated impulse withstand voltage [U _{imp}] kV	8	8	8		8	8	8	
■ Rated breaking capacity, kA								
JIS C 8201-2-1 Ann.1 Ann.2 DC	—	—	10/5		—	—	10/5	
IEC 60947-2 I _{cu} /I _{cs} ①②	10/5	10/10	—		10/10	10/10	—	
■ External dimensions, mm								
	a	140	185	185	210	280	280	
	b	260	260	260	273	273	273	
	c	103	103	103	103	103	103	
	d	145	145	145	145	145	145	
Weight (● marked standard type) kg	4.2	5.6	5.6		8.5	11.5	11.5	
■ Connections and Mountings								
Front-connected (FC) Terminal screws	●	●	●		—	—	—	
With extension bars	○ (BAR)	○ (BAR)	○ (BAR)		●	●	●	
Rear-connected (RC) Flat bar studs	○	○	○		○	○	○	
Plug-in (PM) For switchboards	—	—	—		—	—	—	
For distribution boards	—	—	—		—	—	—	
Draw-out type (DR)	—	—	—		—	—	—	
TemPlug70 (PG)	—	—	—		—	—	—	
TemPlug45B (PG4)	—	—	—		—	—	—	
DIN rail mount	—	—	—		—	—	—	
Clip-in chassis mount	—	—	—		—	—	—	
■ Accessories (optional) Symbol								
Interior								
Auxiliary switch	A X ●	●	●		●	●	●	
Alarm switch	A L ●	●	●		●	●	●	
Shunt trips	S H ●	●	●		●	●	●	
Undervoltage trips	U V ●	●	●		●	●	●	
Motor operator	M C ●	●	●		●	●	●	
External operating handle	H B ●	●	●		●	●	●	
Door-mounted (variable depth)	H P ●	●	●		●	●	●	
Toggle extension	H A ●	●	●		●	●	●	
Mechanical interlock								
Slide type	M S —	—	—		—	—	—	
Rear-connected type	M B —	—	—		—	—	—	
Link type	M L —	—	—		—	—	—	
Wire type	M W —	—	—		—	—	—	
Exterior								
Toggle holder	H H ●	●	●		●	●	●	
Toggle lock	H L ●	●	●		●	●	●	
Terminal cover For front-connected	C F ●	●	●		●	●	●	
For rear-connected and plug-in	C R ●	●	●		●	●	●	
Interpole barrier	B A ● ⑩	● ⑨	● ⑨		● ⑩	● ⑩	● ⑩	
Terminal block for lead	T F ●	●	●		●	●	●	
Door flange	D F —	—	—		—	—	—	
■ Standard specifications								
Overcurrent trip mechanism	Adj. thermal, fixed magnetic	Adj. thermal, fixed magnetic	Adj. thermal, fixed magnetic		Adj. thermal, fixed magnetic	Adj. thermal, fixed magnetic	Adj. thermal, fixed magnetic	
Colour of cover	Grey	Grey	Grey		Grey	Grey	Grey	
Trip button (Colour)	Yes (Red)	Yes (Red)	Yes (Red)		Yes (Red)	Yes (Red)	Yes (Red)	
Handle position indication (ON: Red, OFF: Green)	Yes	Yes	Yes		Yes	Yes	Yes	
Suitability for isolation	Yes	Yes	Yes		Yes	Yes	Yes	
Reverse connection	Yes	Yes	Yes		Yes	Yes	Yes	

Notes:

● : Standard. This configuration used unless otherwise specified. ○ : Optional standard. Specify when ordering. ● : "yes" or "available". — : "no" or "not available".

① : Connect 3poles or 4poles in series.

② : The time constant (L/R) of the circuit should be,
 less than 2.0ms nearby rated current
 less than 5ms for short circuit ≤ 10KA
 less than 10ms for short circuit ≤ 20KA
 less than 15ms for short circuit > 20KA

⑨ : For front connection, both line and load side interpole barriers are supplied as standard.

For rear connection, line side interpole barriers are supplied as standard.

⑩ : For front connection, 5pcs line side interpole barriers and 3pcs load side interpole barriers are supplied as standard.

For rear connection, 5pcs line side interpole barriers are supplied as standard.

⑩ : For front connection and rear connection, 2pcs line side interpole barriers are supplied as standard.