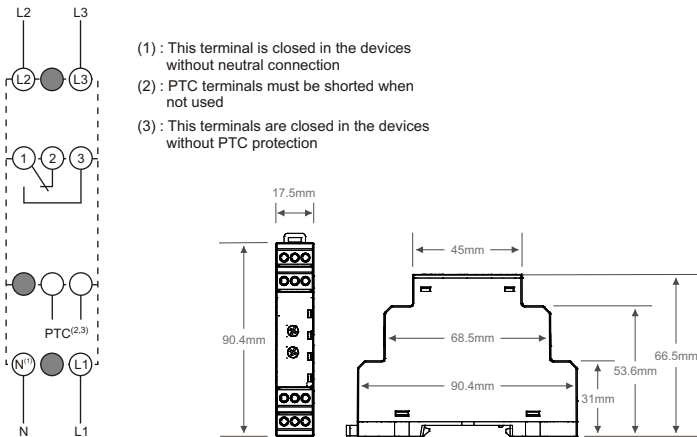


Operating voltage (U _N)	85 .. 320V AC (C1,V1,F1 Series) 150 .. 500V AC (C1D,V1D Series)
Supply input	L1 - N (C1,V1,F1 Series) L2 - L3 (C1D,V1D Series)
Operating frequency	35 .. 70 Hz
Voltage measurement range	U _N
Voltage adjustment range	
Lower limit	150 .. 210V AC (C1,V1 Series) 270 .. 370V AC (C1D,V1D Series)
Upper limit	240 .. 300V AC (C1,V1 Series) 400 .. 500V AC (C1D,V1D Series)
Voltage hysteresis	6V AC
Time delay adjustment range	0.1 .. 10 sec / 1 .. 10sec (F1)
Frequency adjustment range (F1)	
Lower limit	40 - 42.5 - 45 - 47.5 .. 62.5 Hz
Upper limit	42.5 - 45 - 47.5 - 50 .. 65 Hz
*Upper limit must be at least 2.5Hz greater than lower limit for proper operation	
Frequency hysteresis (F1)	0.4Hz
Unbalance adjustment range	%5 .. %20
Unbalance hysteresis	%3 x 230V AC (P1 Series) %3 x 400V AC (P1D Series)
PTC alarm threshold	≈1100Ω
Over over voltage threshold	310V AC (C1,V1 Series) 510V AC (C1D,V1D Series)
Under under voltage threshold	140V AC (C1,V1 Series) 240V AC (C1D,V1D Series)
Output contact	1 C/O
Maximum switching current	10A
Maximum switching voltage	250V AC
Maximum switching power	1250VA
Operating temperature	-20°C .. 60°C
Storage temperature	-40°C .. 75°C
Protection class	IP20
Connection	Rail mounted



FAILURE TYPE	LED INDICATION	DESCRIPTION
phase failure	A1: A2:	L1: L2: L3: R:
phase sequence error	A1: A2:	L1: L2: L3: R:
unbalance	A1: A2: devices with neutral connection $A(\%) = \frac{V_{LN(max)} - V_{LN(min)}}{230V} \times 100$ devices without neutral connection $A(\%) = \frac{V_{LL(max)} - V_{LL(min)}}{400V} \times 100$	L1: L2: L3: R:
PTC error	A1: A2:	PTC sensor R:
over voltage	A1: A2:	L1: L2: L3: R:
under voltage	A1:	L1: L2: L3: R:
over frequency	A2:	Freq. R:
under frequency	A1:	Freq. R:
over over voltage	A2:	L1: L2: L3: R:
under under voltage	A1:	L1: L2: L3: R:
frequency error	ON:	Freq. R:

type	neutral connection	phase failure	phase sequence	unbalance	PTC protection	adjustable voltage protection	adjustable frequency protection	instantaneous voltage protection	order no
C1-SA	✓	✓	✓	✓				✓	270 156
C1-SAP	✓	✓	✓	✓	✓			✓	270 157
C1-SVP	✓	✓	✓		✓	✓		✓	270 158
C1D-SA		✓	✓	✓				✓	270 256
C1D-SAP		✓	✓	✓	✓			✓	270 257
C1D-SVP		✓	✓		✓	✓		✓	270 258
V1	✓	✓				✓		✓	270 159
V1-S	✓	✓	✓			✓		✓	270 160
V1D		✓				✓		✓	270 259
V1D-S		✓	✓			✓		✓	270 260
F1	✓						✓		270 161