








U-Series Air Circuit Breakers

Hyundai Heavy Industries (HHI) ACB meets your demands for high breaking capacity, full line-up, and optimized panel size. Various accessories and connection methods realize user-friendly handling.



| High performance protection trip relay (OCR) |

- The protection trip relay (OCR) of U-Series ACB supports stable power supply with temperature alarm, fault recording, and others in addition to main protection functions.

Application		General feeder				
		N type	A type			P type
		UPR-LN	UPR-LA	UPR-LAG	UPR-LAZ	UPR-LP
Ordering code	50Hz	50	51	52	53	54
	60Hz	60	61	62	63	64
Externals						
Main function		<ul style="list-style-type: none"> • L/S/I/G • Thermal • Self-power • Fail safe • Intergrated instantaneous output contact 	<ul style="list-style-type: none"> • L/S/I/G • Thermal • Self-power • Fail safe • Communication (Modbus) • Control power • ZSI • Remote reset function • Individual continuous output contact: LTD, STD/INST, GFT, PTA • Fault recording 256ea • Record latest fault waveform (4 period, check by communication) • Event recording 200ea (check by communication) 	<ul style="list-style-type: none"> • L/S/I/ELT • Outer CT ground fault (Ground fault at more than 30A) → Using outer CT at secondary for 5A type. • Thermal • Self-power • Fail safe • Communication (Modbus) • Control power • ZSI • Remote reset function • Individual continuous output contact: LTD, STD/INST, PTA, ELT • Fault recording 256ea • Record latest fault waveform (4 period, check by communication) • Event recording 200ea (check by communication) 	<ul style="list-style-type: none"> • L/S/I/ELT • ZCT leakage (under 30A) → Using outer CT for 1,000:1A • Thermal • Self-power • Fail safe • Communication (Modbus) • Control power • ZSI • Remote reset function • Individual continuous output contact: LTD, STD/INST, PTA, ELT • Fault recording 256ea • Record latest fault waveform (4 period, check by communication) • Event recording 200ea (check by communication) 	<ul style="list-style-type: none"> • L/S/I/G • Thermal • Self-power • Fail safe • Communication (Modbus) • Control power • ZSI • Remote reset function • Individual continuous output contact: LTD, STD/INST, GFT, PTA • Fault recording 256ea • Record latest fault waveform (4 period, check by communication) • Event recording 200ea • Overload/Underload • Imbalance (voltage/current) • Reverse power • 3 phase voltage/ Current RMS/ Vector • Power (P,Q,S), power factor (3 phase) • Energy (normal/ reverse direction) • Demand

U-Series / Air circuit Breakers

Frame		A frame	B frame	C frame	D frame ¹⁾	A frame	B frame
Model		UAN				UAS	
Recognition order code: Rated current (I _n max at 40°C) (A)		06 : 630	06 : 630	32 : 3,200	40 : 4,000	06 : 630	20 : 2,000
		08 : 800	08 : 800	40 : 4,000	50 : 5,000	08 : 800	25 : 2,500
		10 : 1,000	10 : 1,000	50 : 5,000	63 : 6,300	10 : 1,000	32 : 3,200
		12 : 1,250	12 : 1,250			12 : 1,250	
		16 : 1,600	16 : 1,600			16 : 1,600	
		20 : 2,000	20 : 2,000	25 : 2,500			
			32 : 3,200				
			40 : 4,000				
Rated operating voltage (U _e) (V)		AC690				AC690	
Rated insulation voltage (U _i) (V)		AC1,000				AC1,000	
Frequency (Hz)		50/60				50/60	
Number of poles		3, 4				3, 4	
Current setting range (..... x I _n max)		0,4 - 1,0				0,4 - 1,0	
Rated current of neutral pole (.....% x I _n)		100 %				100 %	
Rated breaking capacity (I _{cu}) (kA sym)	IEC 60947-2 category "B" KS C 4620	AC690/600/550V	65	85	85	100	55
		AC500/480/460V	85	100	100	150	65
		AC415/380/230/220V	85	100	100	150	65
Rated service breaking capacity (.....% x I _{cu})		100 %				100 %	
Rated making capacity (I _{cm}) (kA peak)	IEC 60947-2 category "B" KS C 4620	AC690/600/550V	143	187	187	220	121
		AC500/480/460V	187	220	220	330	143
		AC415/380/230/220V	187	220	220	330	143
Rated short-time capacity (I _{cw}) (kA, without Inst.)		1 sec	65	85	85	100	55
		2 sec	60	75	75	100	45
		3 sec	50	65	65	100	36
Rated impulse withstand voltage (U _{imp}) (kV)		12				12	
Maximum total breaking time (ms)		40				40	
Closing operating time	Motor charging time (sec) max.	10				10	
	Closing time (ms) max.	80				80	
Life cycle (times)	Mechanical	Without maintenance	20,000	15,000	10,000	10,000	20,000
		With maintenance	30,000	2,000	2,000	15,000	30,000
	Electrical	Without maintenance	5,000	06 - 20 : 10,000 25 - 40 : 5,000	2,000	2,000	5,000
		With maintenance	10,000	06 - 20 : 15,000 25 - 40 : 10,000	5,000	5,000	10,000
Weight (kg)	3 pole	Draw-out type	63	06 - 32 : 87 40 : 107	145	210	63
		Fixed type	34	06 - 32 : 44 40 : 61	76	120	34
	4 pole	Draw-out type	280	06 - 32 : 130 40 : 61	173	280	74
		Fixed type	44	06 - 32 : 55 40 : 81	81	160	44
External dimension (mm) (WxHxD, except busbar)	3 pole	Draw-out type	328 x 460 x 368	399 x 460 x 368	624 x 460 x 368	766x460x368.4	328 x 460 x 368
		Fixed type	337 x 404 x 296	408 x 404 x 296	633 x 404 x 296	775.4x404.4x295.8	337 x 404 x 296
	4 pole	Draw-out type	413 x 460 x 368	514 x 460 x 368	794 x 460 x 368	996x460x368.4	413 x 460 x 368
		Fixed type	422 x 404 x 296	523 x 404 x 296	803 x 404 x 296	1,005x404.4x295.8	422 x 404 x 296

※ 1) D frame will be available from 2015-1st half.

