

Multifunction Power Protection Relays



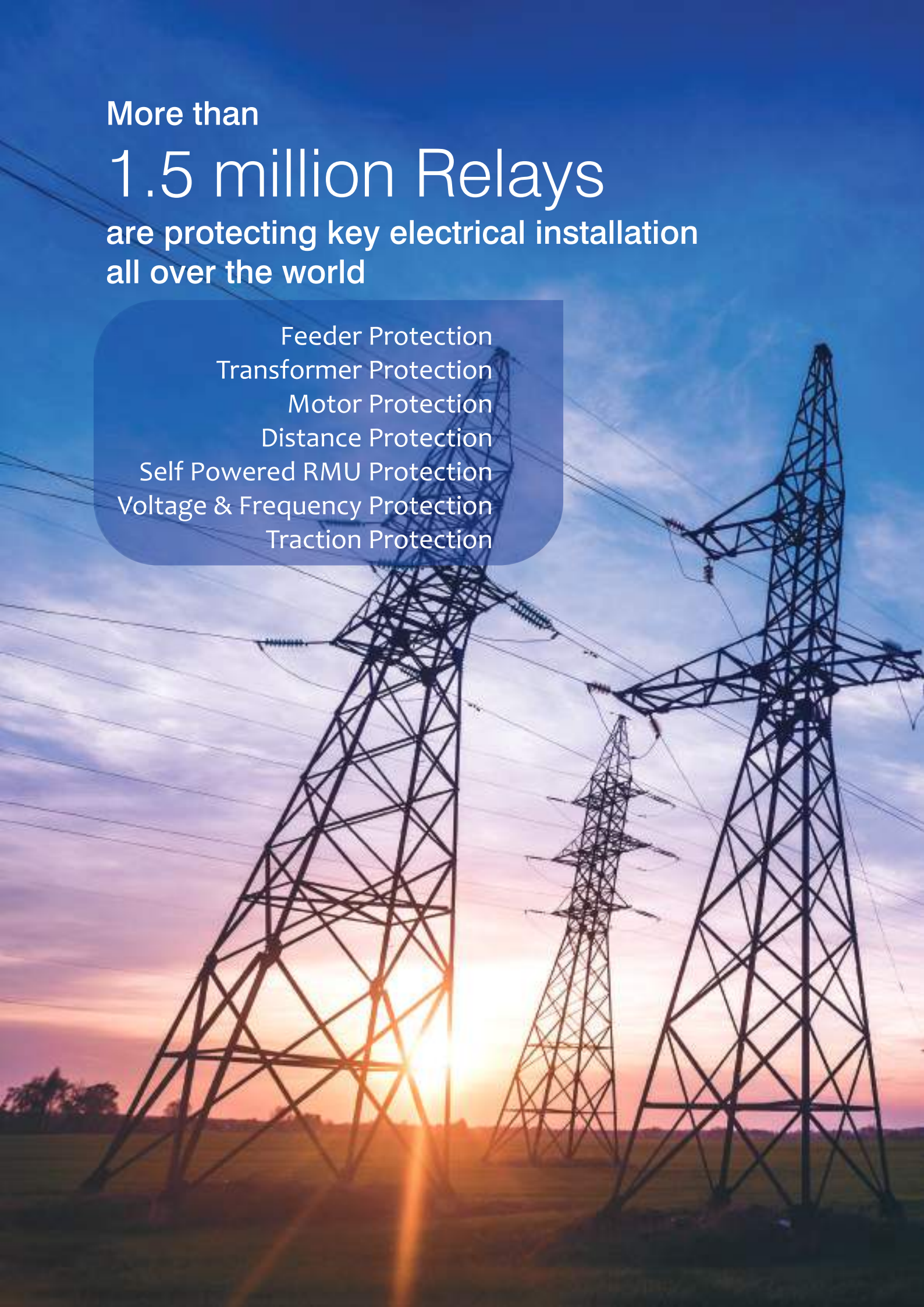
World-class quality, comprehensive range of Relays
for Generation, Transmission and Distribution

More than

1.5 million Relays

are protecting key electrical installation
all over the world

Feeder Protection
Transformer Protection
Motor Protection
Distance Protection
Self Powered RMU Protection
Voltage & Frequency Protection
Traction Protection



Numerical Protection Relays

ASHIDA has designed economical & reliable multifunction Basic (B0), Enhanced (E0), Modular (M0) & Draw out (DWO) version of Relays. Modular version relays are available in 14" and 19" rack. In 14" rack case with combination of 32 programmable inputs and programmable outputs and in 19" rack case with combination of 64 programmable inputs and programmable outputs are provided. The simple and compact construction of ADITYA series relays provides integrated Protection, Control and Monitoring functions.

Protection Relays Different Versions



	B0	E0	M0 - 14"	M0 - 19"
Directional Feeder Protection	■	■	■	■
Transformer Protection	■	■	■	■
Motor Protection	■	■	■	■
Distance Protection				■

Relays with varied applications:

Relays are designed with fast and selective tripping function which ensures the stability and availability of electrical powersystem. Wide range of Relay options enables the customer to choose appropriate and economical solution. As per customer's requirements and specifications we can provide different communication protocols like IEC 103, IEC 61850, MODBUS, DNP3, etc. with different communication ports like RS485, RS422, RJ45, Ethernet Port, USB port, etc.

FEEDER PROTECTION RELAYS

Designed for Transmission Line Protection, Underground Cables & Feeder Protection, Machine Protection and Shunt Capacitor Bank Protection applications.

TRANSFORMER DIFFERENTIAL RELAYS

Designed for Transformer, Generator, Motor & Reactor protection applications.

MOTOR PROTECTION RELAYS

Designed for electric motor protection applications.

LINE DISTANCE PROTECTION RELAYS

Designed for Line, Feeder & Machine protection applications.

RING MAIN UNIT PROTECTION RELAYS

Designed for Ring Main Unit protection applications. It is a Self Powered Relay.

Bay Control Protection Unit (M0-19") Features:

- IEC 61850 native platform.
- Extensive dynamic range in current inputs & voltage inputs
- Modular Hardware.
- Program features with logic, latches, timers, counters, flip-flop & edge-triggers.
- Analog parameter measurement, Maximum Demand, Energy measurement.
- Digital inputs from basic 16 Nos extendable to 32 Nos for control functions or automatic functions.
- Digital outputs from basic 16 Nos extendable to 32 Nos for control/tripping and signalling.
- USB port, RS 485 port or RJ45 port for configuration.
- Dual ethernet port for Redundancy.
- Web Server
- Applicable in redundant grid.



Self Powered RMU Protection Relay

ANSI	Functions	Model	Model			
			AM 460 (Ver.) ADR241S	AM 760 (Ver.) ADR241S	AM 511 (Hbr.) ADR241S	AM 521 (DWO) ADR241S
37	Under Current Protection	NA	■	■	■	
46	Negative Phase Sequence	NA	■	■	■	
46BC	Broken Conductor Detection	NA	■	■	■	
49	Thermal Overload Protection	NA	■	■	■	
50	Instantaneous/Definite Time Phase OC Protection	■	■	■	■	
50N	Instantaneous/Definite Time Ground OC Protection	■	■	■	■	
51	Inverse Time Phase OC Protection	■	■	■	■	
51N	Inverse Time Ground OC Protection	■	■	■	■	
68	Inrush Blocking	■	■	■	■	
79	Auto Reclosing	NA	■	■	■	
86	Lockout (Trip Command)	■	■	■	■	
CLP	Cold Load Pick Up	■	■	■	■	
	Disturbance Recording	NA	■	■	■	
	Event Recording	■	■	■	■	
	Fault Recording	■	■	■	■	
	3OL	■	NA	NA	NA	
	Self Supervision	■	■	■	■	
	3 Mechanical Flags	NA	NA	NA	●	
	DI/DO	4/4	4/3	4/4	4/5	

Transformer Differential Protection Relay

ANSI	Functions	Body Type	Model			
			B0 ADR233B	E0 ADR233B	M0 ADR233B	DWO A21T
24	Over Excitation Protection		■	■	■	■
27	Under Voltage Protection		■	■	■	■
46	Negative Phase Sequence Protection		■	■	■	■
46BC	Broken Conductor Detection		■	■	■	■
49	Thermal Overload Protection		■	■	■	■
50	Instantaneous/Definite Time Phase Over Current Protection		■	■	■	■
50N	Instantaneous/Definite Time Ground Over Current Protection		■	■	■	■
50BF	Breaker Failure		■	■	■	■
51	Inverse Time Phase Over Current Protection		■	■	■	■
51N	Inverse Time Ground Over Current Protection		■	■	■	■
59	Over Voltage Protection		■	■	■	■
REF-64R	High/Low Impedance Ground Differential Protection		■	■	■	■
86	Lockout (Trip Command)		■	■	■	■
87T(2)	Two Winding Transformer Phase Differential Protection		■	■	■	■
	Trip Circuit Supervision		■	■	■	■
	Independent Protection Setting Groups		2	4	4	2
	Disturbance Recording		10	10	10	5
	Event Recording		■	■	■	■
	Fault Recording		10	10	10	5



ASHIDA Draw Out Electro-Mechanical Relays

ASHIDA has launched new series of Auxiliary Relays. 'Ojas Series' is a premium series of Electro-Mechanical Relays having Draw Out facility. Draw Out cabinet makes these Relays easy to install and handle. ASHIDA Relays are known for reliability, performance and security. ASHIDA Auxiliary Relays are designed for all conditions and applications. Models are specifically designed to be best suited for electrical installations.

ADE-A

Low burden Relays for event recording, alarm, contact multiplication, interlocking etc.

Available in single coil & double coil with Self Reset, Self + Hand Reset and Hand Reset Contacts. Standard Flag, Reverse Flag & No Flag options

ADE-T

Master Trip Relays which directly operate circuit – breaker trip coils. ADE-T Relays have instantaneous high speed tripping contacts. The Relay is an important link between Protection Relays and Circuit Breakers.

Available in single coil & double coil with Self Reset, Hand Reset, Electrical Reset and Hand + Electrical Reset Contacts. Standard Flag Following Flag options

ADE-S

Supervision Relays which supervise AC or DC auxiliary supply as well as trip circuit healthy condition.

AC Supervision & DC Supervision Relay models are available in single coil & double coil with Self Reset and Hand Reset Contacts. ADE-S Trip Circuit Supervision Relay models are available in triple coil with Self Reset Contacts. Standard Flag, Reverse Flag & No Flag options

ADE-C

Relays are contact multiplication relays with electrical reset.

Available in double coil with Electrical Reset Contacts. Following Flag

ARTB (ASHIDA Relay Test Block) & ARTP (ASHIDA Relay Test Plug)

provides facilities for monitoring & secondary injection testing of any power system protection scheme. Available in Horizontal & vertical type.

The models are available in Case Size 2 & Case Size 4 with panel cut out size 159mm (H) x 48mm (W) and 159mm (H) x 100mm (W) respectively.



Flag Relay



Auxiliary Relay in CSB Cabinet
(92mm x 92mm)



Auxiliary Relay in CSC Cabinet
(186mm x 92mm)

Auxiliary Relays

ASHIDA electro-mechanical type auxiliary relays. Full range of auxiliary relays for applications of control & monitoring, tripping circuit breakers, supervising, signaling and interlocking. Simple, compact and robust design. All relays conform to IS:3231 requirements.

Contact Rating:

	Make and Carry	Make and carry for 3 Sec	Break
AC	1250VA with max. of 5A & 660 Volts	7500VA with max. of 30A & 660 Volts	1250VA with max. of 5A & 660 Volts"
DC	1250 W with max. of 5A & 660 Volts.	7500 W with max. of 30A & 660 Volts	100 W Resistive, 50 W Inductive, 5A / 660V

Models

Master trip Relays: AVAJH13, AVAJH23, AVAJH33, AVAJS13, AVAJS23, AVAJHM23, AVAJHM33, AVAJC11

Auxiliary Relays: AVA11, AVA12, AVA13, AVA21, AVA22, AVA23, AVA31, AVA32, AVA33, AVA41, AVA42, AVA43

Supervision Relays: AVA21A, AVA21D, ATSR31A

Flag Relay: AFLGR (Alarm Control Indications and other auxiliary duties in AC and DC system)

The relays are offered with single coil, double coil or triple coil depending upon the application. The relays are available with self reset contacts, hand reset contacts or self + hand reset contacts with HR mechanical flag.



ASHIDA H.O & R&D



ASHIDA UNIT No 2



ASHIDA UNIT No 3



ASHIDA

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